

National Surveillance System (NSS)
Transitional Islamic State of Afghanistan

Round One Surveillance Reports Sayyed Abad District Sentinel Sites Sar-i Pul Province

(data collection: Fall 2003)

prepared by

Save the Children Federation, Inc. (USA)
Food Security and Nutritional Surveillance Team

in partnership with

Sar-i Pul Province Surveillance Unit

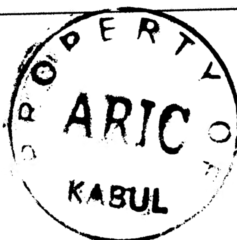


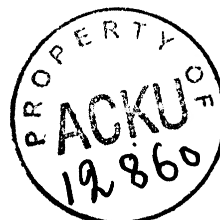
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Ministry of Health

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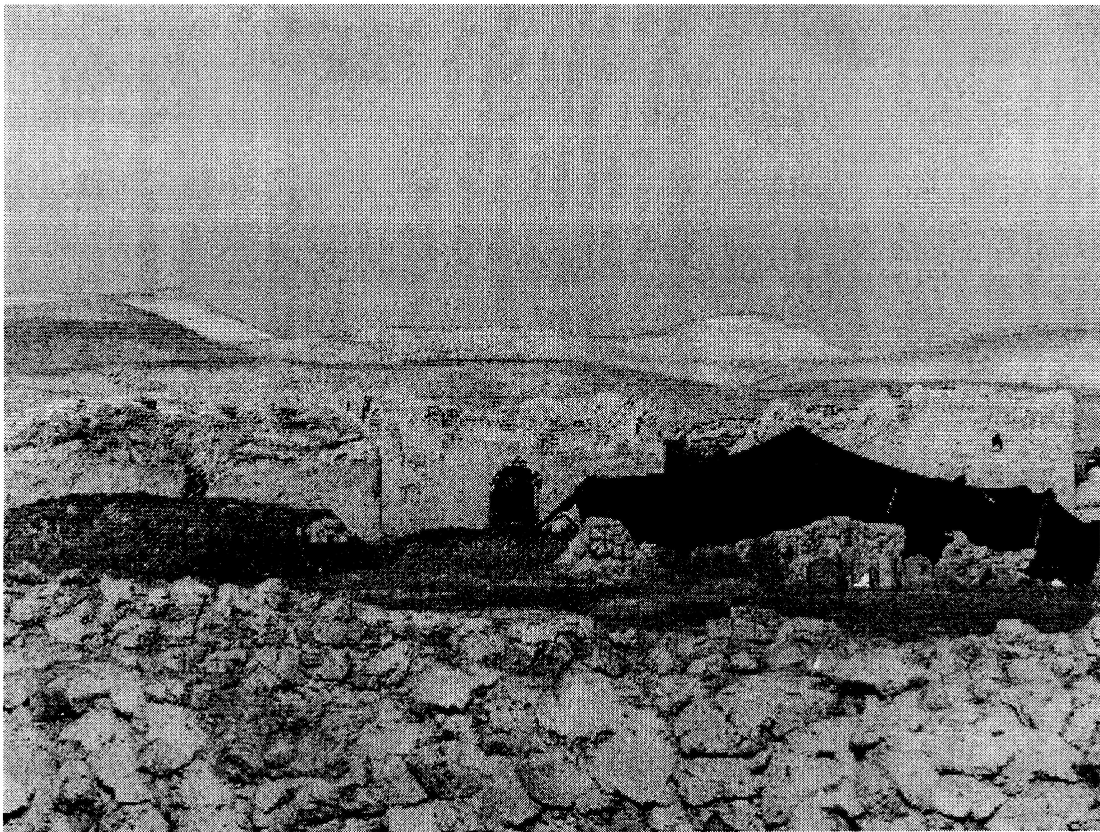
November 27, 2004





Sar-i Pul Province Reports

Sayyed Abad District Sentinel Sites

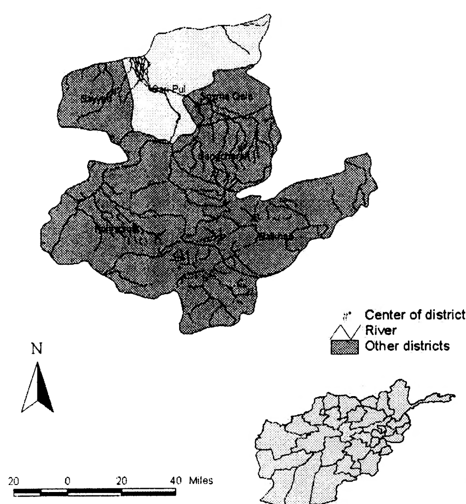


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	National Surveillance System (NSS) Transitional Islamic State of Afghanistan	Sayyed Abad District Qush Tepa Sentinel Site
Sar-i Pul Surveillance Unit	Ministry of Rural Rehabilitation and Development, Ministry of Agriculture and Animal Husbandry and Ministry of Health	Fall 2003

Saripul Province



SUMMARY FINDINGS: QUSH TEPA

Food Security

- In 2003 cereal crop production was better than in 2002
- Only 1 household considered its food situation to be worse than a year ago
- 20% of households thought they did not have enough food to eat during the previous 4 months
- Market prices of main crops were low, helping households purchasing grain

Risk to Lives

- The crude mortality rate and the mortality rate for children <5 are within acceptable levels
- Morbidity patterns for children <5 were high (ARI: 47%, watery diarrhea: 30%, bloody diarrhea: 16%)
- Measles vaccination coverage was 44.2%. This and the diarrhea statistics are worrying because of recent measles and cholera outbreaks.
- Nearly 25% of the women were at risk of malnutrition
- Health facilities were available within a reasonable distance and households could afford to pay doctors' fees and for medicines
- About half of households did not have toilet facilities

Livelihood Security

- 60% of households did not own land, but a large proportion were dependent on agricultural activities for their livelihoods
- 10% of households felt their income had decreased since the year before
- A severe late frost destroyed most of the fruit and nut tree crop
- The sale price for *gilims* decreased

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What is the NSS?

The National Surveillance System monitors trends in key indicators to predict early signs of change and deterioration in food security, nutrition, and livelihoods. In conjunction with complementary data collection systems, the NSS provides relevant data for prioritizing limited resources and designing programs.

Methodology

The NSS is based on a sentinel site system, in which provincial level ministries follow a rotating cohort of households over time. Sites are selected so that they mirror the majority of the communities with respect to agro-ecological features, economic activities, available services, and people in a given area known as a livelihood or agro-ecological zone. Information from the sentinel may not be representative of every village in the zone because of the diversity of livelihoods in Afghanistan. However, it is likely that the data from one sentinel site can signal concern for other villages in the same zone (See Annex I for detailed information on methodology).

 **Save the Children.**

The Sar-i Pul Provincial Surveillance Unit is supported by Save the Children USA and funded by DFID

REPORT OBJECTIVES

This document has several objectives. First, it intends to report information coming out of the National Surveillance System standardized methodology. Therefore, this report provides:

- current information on household food security status in Sayyed Abad District,
- information on risk to lives and nutritional risk to individuals in Sayyed Abad District,
- information on the current household livelihood security situation in Sayyed Abad District, specifically looking at current shocks to livelihoods and the ability of households to adapt to these shocks, and
- better understanding of the vulnerability and risk of communities and households in Sayyed Abad in relation to issues of food security, mortality, health, and nutrition.

Secondly, this report provides baseline information on indicators that are unique to a local area but had never before been explored in the depth needed for use in guiding programs and policies. These indicators reveal:

- characteristics of household wealth in Sayyed Abad District;
- the presence of malnutrition, morbidity, and mortality in rural communities in Sayyed Abad District; and
- types of livelihood strategies employed in Sayyed Abad District.

Finally, the report aims to suggest how government and other agencies can use this new understanding about livelihoods, vulnerability, and risk for designing and prioritizing program interventions and effective policies.

SAYYED ABAD AREA LIVELIHOOD ZONES

Sayyed Abad District is located in the northern part of Sar-i Pul Province. It was formed in 1989 from sections of Sayyad and Sar-i Pul districts in Sar-i Pul Province and from Shiberghan district in Jawzjan province. The provincial government recognizes Sayyed Abad as an independent district, but the central government does not. As a result, Sayyed Abad does not appear as a separate district on maps. Sayyed Abad means 'built by Sayyed'.[1] Sayyed Abad town is the official district center housing the governor, the police unit, and the district administrator who collects taxes. Sayyed Abad has, in recent times, always been under the Jumbesh political party, although other districts in Sar-i Pul Province are not.

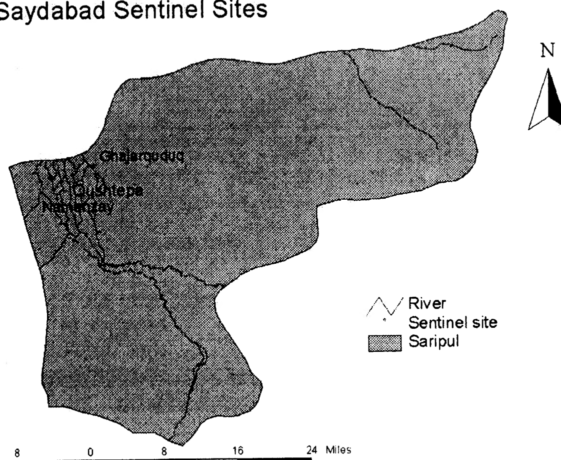
Sayyed Abad has rolling valleys and plains. The district lies at the end of two major snowfed rivers coming from Kohistanat and Sangcharak districts that provide water for extensive irrigated agriculture in the valleys. Rainfed agricultural land is found in hilly areas with altitudes between 400 and 600 meters, and in some parts of the valleys.

Zone 1: Intensive Irrigated Land (30 villages): Qush Tepa

Livelihood Zone 1 is central to the district and envelops the river valleys and the lower slopes of the valleys where irrigation channels run. The great amounts of available water allow a variety of crops. The people are from many ethnic groups: Pashto, Hazara, Turkmen, Uzbek, and Tajiks. A large number of people left during the years of conflict, but many returned during the last year. Most communities have schools, although fewer have school buildings. There is good access to the main road between Shiberghan and Sar-i Pul town.

Zone 2: Livestock and Rainfed Agriculture (15 villages): Gajar Qudok

Livelihood Zone 2 contains villages found on the upper slopes of the hills. Most households rely on rainfed agriculture and livestock as their primary sources of income. Mostly Arabs, they occupy small isolated communities made up of many new returnees. Some communities have newly established schools in tents and they obtain their water from wells.



[1] Sayyed is a family lineage that was related to the Prophet Mohammad.

Zone 3: Grazing Land and Rainfed Agriculture (nomadic populations) (5 villages): Namanzai
Livelihood Zone 3 located in the western section of Sayyed Abad district where the land starts turning into desert. The primary livelihood of these people is livestock, but some of the households also engage in agricultural production. They are either nomadic or semi-nomadic populations of Pashto living in isolated communities. They leave their communities in the spring for the adjacent grazing lands of the Dashti Layli (desert) and return in autumn. They have limited access to education and they obtain water from the river.

QUSH TEPA GENERAL INFORMATION

Background Geography

Qush Tepa represents the intensively irrigated zone in Sayyed Abad. This zone envelops the river valleys and the lower slopes below the rolling plains. Water available from the many irrigation channels supports a variety of crops, including vegetables, fruits, pulses, cotton, and grains like wheat, corn, and barley.

Qush Tepa is roughly divided into three communities based on attendance at three different mosques. In total the village has around 200 households. People in this settlement and surrounding area are 78.5% Balochi who speak Pashto, 10.8% of Arabic descent who speak Dari, 5.8% Uzbek, and 5% Turkmen. The average household size is 6.5 people, which is a bit higher than the Afghan average of 6.1. There is a clear difference in the household size by wealth group. Better-off men in the village have more than one wife at a time and produce children with all wives. Also, sons of better-off families tend to stay in the household after marriage.

Average household size	
Better-off	**9.0**
Medium-income	**6.8**
Poor	**5.8**
All households	**6.5**

Information for this report was collected in two surveys. The first one was a baseline surveillance data collection in May 2003 and the second one was a survey using the standardized national food security and nutrition surveillance questionnaires in November 2003. However, most information was collected during the November work via male and female focus group interviews and household interviews. The 40 households interviewed in November were the same 40 households interviewed in May.

Administrative System and Political Affiliations

Village elders, called the *shura*, select the village leader or *kariador*. All village level decisions are made by the *kariador* in consultation with the *shura*, including the settling of all disputes. The village has administrative links to the district center of Sayyed Abad through the *kariador* and villagers go to the governor to resolve disputes that cannot be settled in the village. One tenth of the harvest is paid as an informal tax, in some places to the Governor and in others to the local commander.

Migration

Over the years this village has seen a lot of out-migration. In the early 1980s it was a stronghold of the *mujahiddin*, so it was attacked by the central government. About 150 households migrated to Kohistanat District in southern Sar-i Pul Province to escape the fighting. The conflict diminished in 1987, and 100 households returned to the village while 15 households went to Pakistan and another 35 went to other provinces in Afghanistan. In 1999, insecurity surrounding the Taliban convinced about 20 households to leave for Iran and Saudi Arabia. During the drought years, about 30 more households migrated to Iran and another 20 to Pakistan. In addition to these entire households that left over time, around 150 young men also migrated to Iran and Pakistan for work during the last 20 years. Currently, only about 50 of these men have returned. During the 4 months prior to the survey, 11 households returned to the village from abroad.

Community Facilities

The village has a school that is 1 km from the village and easily accessible to children. The school is presently holding classes for boys to the secondary level with the first batch of boys reaching the seventh grade. It began classes for girls in 2003 so, in 2004, second grade is the highest grade for girls. The school has 281 students including 30 girls and employs 11 male teachers. Children attending the school are from Qush Tepa and surrounding villages. Classes for older girls are held in a home school near the mosque which employs 1 female teacher.

Local Perceptions of Socioeconomic Status/Wealth

The community divided households into three different wealth groups, or socioeconomic categories. The table below describes some characteristics of each wealth group and the proportion of households in each category. These socioeconomic groups will be used throughout the report to understand how food security, risk to lives, and livelihood security may be different for households of different socioeconomic status.

Better-off households: 15%

A rich person has about 50 to 80 goats and sheep, 100 jeribs of irrigated land, 1 house, 2 camels, and 2 oxen. -women-

A rich person has about 100 goats and sheep, 100 jerib of irrigated land, a house, 2 oxen for plowing the land. -men-

Medium-income households: 27.5%

An average household has 40-50 goats and sheep, 20 jeribs of irrigated land, 2 oxen, 1 house, 2 donkeys, and they have money to cover expenses for about 1 year -women-

An average household has 20-30 goats and sheep, 10 jeribs of irrigated land, 1 house, and 2 oxen. -men-

Poor households: 57.5%

A poor person has 2 donkeys, some have 1 house, some do not, work as daily laborers...most income from this. Some have food for a year but most do not have this...they take loans from others. -women-

A poor person has 5 goats and sheep, all have 1 donkey, some have 1 house, but it is a small house. Work as labor all the year around. -men-

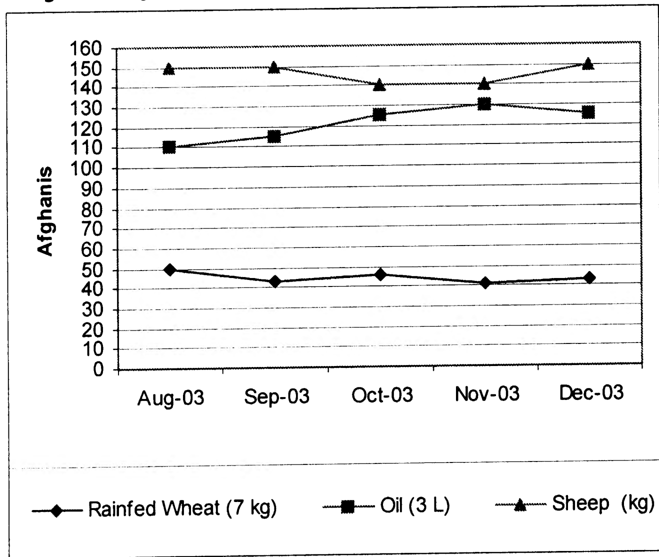
QUSH TEPA FOOD SECURITY

Certain indicators reveal information about access, availability, and quality components of food security. Monitoring these indicators can track changes in food security at a sentinel site, identify households' current food security status, and provide information on the nature of any food insecurity.

Market Access

The closest food market to Qush Tepa is Sar-i Pul town which is less than 2 hours away by foot or donkey. By taxi the trip takes less than 1 hour and the round trip costs about 40 Afs. The men of the household go to the market on market days, which are Monday and Thursday. If a household has no adult men, women are may go to the market in the company of a relative. The villagers of Qush Tepa sell wheat, barley, cumin, sheep, goats, lambskin, spun wool, and *gilims* in the market. They buy food and non-food items such as oil and soap. Transactions in the market place usually take place in cash. People have access to the market in all seasons.

Market location	Time to reach market		Round trip cost	Market accessible in winter and spring?
	Vehicle	Foot		
Sar-i Pul	<1 hour	1-3 hours	40 Afs	yes

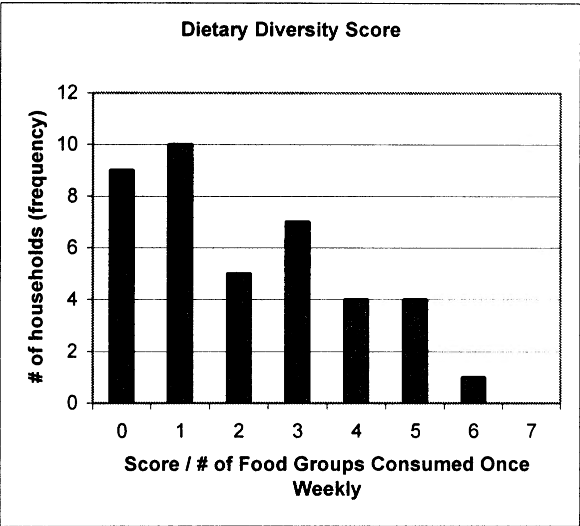


Food Prices

Many households in the Qush Tepa area grow their own wheat so they do not need to buy it. However, some households do not grow enough so they trade labor or goods to purchase the wheat. The terms of trade for grain purchase, even in the local area, will usually reflect the Sar-i Pul market price. The price of wheat in the Sar-i Pul market is about the same as in the other cities in the north of Afghanistan. The wheat price fell by 20% between August and November of 2003. The low prices are not good for wheat growers but benefit those who must buy their wheat. The price of cooking oil rose by 18% and the price of mutton fell by 6.6%.

Dietary Diversity and Dietary Quality
Dietary diversity is a primary component of food security. Previous studies show that dietary habits in Afghanistan are not very diverse and consequently people are at risk of micronutrient deficiency disorders and related diseases. It is not entirely clear how dietary preferences and available food types interact to determine household dietary patterns. To better understand the quality of diets during the previous 4 months, surveyors asked about the frequency of eating foods from different food groups.

These results were used to create a dietary diversity score to capture dietary quality and to monitor it over time. The diversity score is calculated by attributing a score of 1.0 to each food group that was eaten at least once weekly. Thus, households with a higher diversity score have a more diverse diet. Repeated surveys throughout the country indicate that most households consume cereals on a daily basis and thus cereals were not included in the diet diversity score. Earlier baseline surveys in the area suggest that most households consumed oil and so this was not included in the score either. On average, households in Qush Tepa had a dietary diversity score of 2.1, with the most households scoring 0 or 1. Diversity scores improved by wealth group as poor, medium, and better-off households scored 1.3, 2.4, and 4.5, respectively. Some households also had scores of 5 and 6, so foods from a variety of groups are either available from the market or produced locally.



The following table reflects the average frequency of food group consumption during the previous 4 months, excluding Ramadan and festivals, by wealth group. The data show that all households are eating protein-rich foods such as meat, milk, and eggs more than 2-3 times a month to supplement the protein they are getting from pulses and cereals, though these data do not reveal information on sufficiency of protein intake.

Average Frequency of Food Group Consumption by Wealth Group

Wealth group	Meat	Milk, yogurt, *krut*, etc.	Eggs	Pulses	Leafy green vegetables	Other vegetables	Fruits	1 = Never eat 2 ≤ Once a month 3 = 2 to 3 times a month 4 = Once weekly 5 = Twice weekly 6 = 3 to 5 times weekly 7 = Always eat
Better-off	3.7	4.2	3.5	4.2	1.0	5.8	5.7	
Medium-income	2.3	2.8	3.2	2.9	1.0	4.0	3.8	
Poor	1.9	2.4	2.0	3.6	1.0	3.2	2.4	
All households	2.3	2.8	2.6	3.5	1.0	3.8	3.2	

The protein of choice differs by wealth group. Better-off households eat milk products more than once a week, whereas medium-income and poor households eat milk products once or twice a month. The better-off eat meat less than once a week, the medium-income eat meat less than twice a month, and the poor hardly eat meat at all. Eggs are eaten 3 times a month by the better-off and medium-income and once a month or less by the poor. Pulses complement wheat and barley consumption once a week or more among the better-off, 3 or 4 times a month among the poor and less than twice a month among the medium-income households. These results indicate that milk products and eggs are luxury goods for Qush Tepa households, and so a decrease in their consumption could signal declining food security and increasing poverty levels.

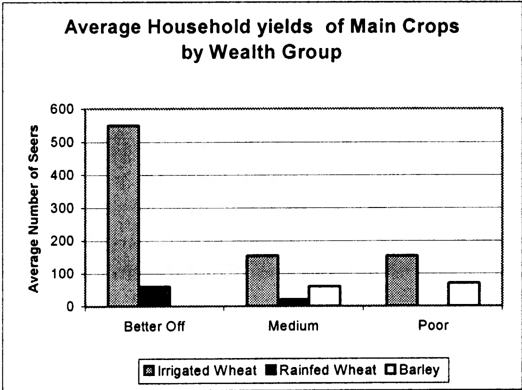
During the previous 4 months, no household ate leafy green vegetables. Poor households ate potatoes, onions, and pumpkins at least twice a month, medium-income households ate them once a week, and better-off households ate them 4 or 5 times a month. Fruit followed a similar pattern but less was eaten by the poor. Watermelons, cantaloupes, and sweet melons were the fruits available in

Qush Tepa during the period of the survey. Usually stone fruit would be available, but a killing frost destroyed the buds on the apricot, peach, and plum trees in the spring. They were available in the market, but were very expensive. Only the better-off could afford these fruits.

As data were not collected on quantities consumed, it is not possible to make statements regarding sufficiency of vitamin and mineral intake. Areas of potential concern: 1) vitamin A from animal sources, 2) beta-carotene from plant sources, 3) calcium from milk-related products and water, 4) iodine from salt, and 5) vitamin C from fresh plant sources.

Crop Production

Rural and semi-rural areas in Afghanistan are still highly dependent on subsistence agriculture for their food, so monitoring annual crop yields and amounts planted can help predict the food security of households. Agricultural production is important to the people of Qush Tepa, with 62.5% of households deriving an income from their own production: 47.5% claim it as their primary income source and another 40% claim agricultural labor as the primary source of income. The main food staples grown in Qush Tepa are wheat and barley from irrigated and rainfed fields. Flax, sesame, sweet melons, watermelons, and beans are minor crops.



2003 Harvest

In 2003, the average amount of irrigated wheat harvested by the 26 households planting it was 646 *seers*. The average amount of rainfed wheat harvest by the 3 planting it was 227 *seers*. Barley was planted by 10 households and their average harvest was 165 *seers*. Flax, sesame, and pulses were harvested in very small quantities. People felt that the harvest in 2003 was much better than 2002 for all these crops, but 2002 data are not comparable. The better harvest can be attributed to more rain, better seeds obtained from non-government organizations (KRO/SC-USA and German Agro Action), and the return of people who could help with harvest. Farmers took a chance in 2003 by planting more area than in 2002, and were pleased with the outcome.

The graph above presents the average amount of crop yield retained by the household. It is divided by wealth group in order to understand the relative differences in actual incomes from crop production by socioeconomic group. The amount of irrigated wheat retained by the better-off households is almost five times the amount retained by the middle-income and the poor.

Food Security Perception

Household perception of food security is an important indicator of current food security status. Only 1 household felt that the food situation was worse than 1 year earlier and this was a poor household. Compared to 4 months earlier, 3 households felt they were worse off at the time of the survey; these households were poor. A full 20% of the households interviewed felt that they had not had enough food in the last 4 months; all 8 households were poor. Only 1 household claimed they were in a worse situation than 1 year earlier, while 3 claimed they were worse than 4 months earlier. The household that thought the food security conditions was better the previous year, as well as 4 months ago, had no children and the head of the household was sick and unable to work. The other 2 households, who thought the situation was worse than 4 months earlier, were dependent upon daily wage labor and unable to find enough work to support their needs.

Perception of Food Security Indicators	% of 40 households
Consider food situation to be **worse** than 4 months ago	8%
Consider food situation to be **worse** in comparison to 1 year ago	3%
Consider food situation **not** to be **enough** in the last 4 months	20%
Worried where food was coming from at the time of the survey	10%
Think the food situation will be **worse** in the next 4 months	10%

Of the households interviewed, 10% felt that the food situation would be worse in the next 4 months and all 4 households were poor. Additionally, 10 % of households were constantly worried where their food was coming from. These households were all daily wage laborers who did not have enough wheat in stock to tide them over and they did not think that they would be able to work enough to

meet their needs during the next 4 winter months. These 4 households did not have children who could work for them or their children were too young to work. These households will most likely need to borrow in order to survive the winter.

CONCLUSION: FOOD SECURITY

The food security situation at the time of the survey was judged better or the same than the previous year by all households except for 1. Crop production increased over the previous year and the 40% relying on agricultural day labor as their primary income source benefited from higher wages and lower wheat prices. Market access is good and diverse foods are available. Dietary diversity was better than in other rural areas of Afghanistan. All households in Qush Tepa ate pulses at least a few times a month to complete the cereal proteins eaten by all Afghani households. People who left Qush Tepa over the last 25 years are returning to contribute to the community's food security future, but there are a few households with constrained capacity to gain food security.

QUSH TEPA RISK TO LIVES

Indicators monitoring the risk to lives at sentinel sites can signal regions where individuals are more vulnerable and reveal underlying causes of increased risk. These indicators help gain better understanding of relationships involving nutrition, sanitation, morbidity, and mortality.

Mortality Indicators

The crude mortality rate (CMR) in Qush Tepa of 0.64 deaths/10,000/day is above the normal developing country rate, which is 0.5 deaths/10,000/day but is below the emergency threshold rate of 1.0 death/10,000/day. The mortality rate of children <5 of 0.46 deaths/10,000/day is well below the normal developing country rate of <1.0 death/10,000/day and is only one quarter the emergency threshold rate of 2.0 deaths/10,000/day.

Of all deaths among women of childbearing age in Afghanistan, 48% can be attributed to complications during pregnancy or childbirth. Additionally, newborns only have a 25% chance of survival if their mothers die during childbirth and most die within the first month due to malnutrition.* Because of this high rate of maternal and child mortality in Afghanistan, this study also looked at the number of children who had a skilled birth attendant present at delivery as a proxy for risk to lives of both the mothers giving birth and the new infants. Of the 3 births during the previous 4 months none was aided by a skilled birth attendant.

Risk to Lives Indicators	%
Mortality indicators[2]	
Crude mortality in last 4 months (deaths/10,000/day)	0.64
<5 mortality in last 4 months (deaths/10,000 /day)	0.46
Births in last 4 months attended by a skilled birth attendant (n=3)	4.7
Morbidity indicators	
Children <5 years with watery diarrhea (n=43)	30.2
Children <5 years with bloody diarrhea (n=43)	16.3
Children <5 with ARI (n=43)	46.5
Children between 6 and 59 months with measles vaccination (n=39)	44.2
Child anthropometric status (WFH % of median)	
Children with severe and moderate acute malnutrition, and edema (n=39)	5.1[3]
Children >6 months and <59 months with edema (n=39)	0.0
Children >6 and <59 months with severe acute malnutrition (n=39)	0.0
Children >6 and <59 months with moderate acute malnutrition (n=39)	5.1
Children >1 year and <59 months with a MUAC under 13.5 cm (n=33)	5.1
Children >1 year and <59 months with a MUAC under 12 cm (n=33)	0.0
Adult women anthropometric status	
Reproductive age women (15-49 years) with a MUAC < 23.0 cm (n=51)	21.6
Reproductive age women (15-49 years) with a MUAC < 21.0 cm (n=51)	2.0
Micronutrient deficiencies	
Households with iodized salt (only includes households with salt) (n=40)	3.0

Morbidity Indicators

[2] The mortality rate was calculated by collecting information on village deaths from the community *mullah*. This method of calculation is being piloted for the Afghanistan context and may be misleading when comparing the figures to standardized WHO mortality rate cut-offs. Thus, the mortality rate should be interpreted with caution until the pilot finding results are finalized.
[3] Malnutrition level assessments are reported based on small cohort sample and should only be interpreted over time in order to understand shifts in nutritional status. Because the sample was randomly selected, these shifts are meant to reflect shifts in both the larger sentinel site populations as well as the livelihood zone population.
*Ministry of Health (MoH) Afghanistan/UNICEF/CDC, 2002.

Morbidity indicators included in the surveillance system are associated with a risk of mortality and are the primary causes of death for <5 children in Afghanistan. The incidence of watery diarrhea among children <5 in Qush Tepa was too high at 30.2%. This is especially concerning because there was a cholera outbreak in the village in 1999. The presence of bloody diarrhea in 16.3% of children <5 in the village was even more concerning. Acute respiratory infections (ARI) afflicted 46.5% of children <5. Past surveys in this area note a higher incidence of ARI during the winter months and low incidence during summer months. Since this survey took place at the beginning of winter, the cooling weather could have been partially responsible for this higher ARI figure. Poor hygiene practices and the lack of adequate health and sanitation facilities also enhance children's susceptibility to ARI. According to official statistics, measles vaccination coverage in Afghanistan is 95% and the Ministry of Health (MoH) reports that Sayyed Abad District has a coverage rate of 49%. The measles vaccination coverage in Qush Tepa was 44%. This low coverage is concerning because there was a deadly measles outbreak in 2000.

Children's Nutritional Status

Using weight-for-height (WFH) percentage of the median, the survey found a global acute malnutrition (GAM) prevalence of 5.5% for children between 6 and 59 months, which is an acceptable rate for developing countries. None of the children was found to be severely malnourished (<70% WFH) or suffering from edema. These 5.5% children suffered from moderate malnutrition. Children classified as moderately malnourished by a middle upper arm circumference (MUAC) of <12.0 cm are potentially at risk of death. The presence of 6.1% of children between 1 and 5 years with a MUAC <13.5 cm was not abnormal for Afghanistan and the lack of MUACs <12.0 cm indicates that children were not at risk of death due to malnutrition.

Adult Women's Nutritional Status

Low MUACs in reproductive-age women are associated with high maternal and child mortality making it an important indicator for increased health risks. Among Qush Tepa's 51 women of child-bearing age, 11 had a MUAC <23.0 cm and 1 had a MUAC <21.0 cm. Additional information on cut-off standards needs to be collected in order to better interpret the severity of the situation for women <23.0 cm for a MUAC. Despite Qush Tepa's generally good morbidity indicators, it must be remembered that nearly 25% of women of child-bearing age have low MUACs and are potentially at risk of malnutrition.

Micronutrient Deficiencies: Iodine

Presence of iodized salt in the house is a proxy for use of it and for iodine deficiency. Iodine deficiency is linked to the following disorders:

- In all individuals: goiter and loss of energy
- In pregnant women: miscarriage, stillbirth, and mentally retarded children
- In children: impaired mental and physical development, mental retardation, physical deformities, and cretinism.

In Qush Tepa, 3% of households had iodized salt, suggesting that households have access to iodized salt at the market.

Health Facilities

The following table lists the health services available to the people of Qush Tepa. In the village a traditional birth attendant was available, and she received gifts, such as cloth, oil and flour in payment for her services. A comprehensive health center, skilled birth attendants, and private doctors are all available in Sar-i Pul, which is about 1 hour away by car and costs 100 Afs for round trip transportation. Qush Tepa is close to the main road between Sar-i Pul and Shiberghan and people catch transportation along the road. The fare is the same no matter where one catches a ride along the route between the cities, so it costs the same to get to the hospital in Shiberghan, even though it is almost twice as far. Normally, a sick person needs to be accompanied by someone in the family so the round trip fare will come to 200 Afs for a visit to any health facilitiy. Some basic health services are provided free by the government at facilities, but usually people go to private doctors and pay a fee of 50 Afs. If the patients do not have much money, doctors will accept 20 to 30 Afs.

Health Services and Facilities	Facility / service provider location	Time to reach facility / service provider	Round trip cost	Access to facility	Facility access in winter and spring?
Health Posts	none	--	--	--	--
Basic Health Center	none	--	--	--	--
Comprehensive Health Center	Sar-i Pul	±1 hour	100 Afs	everybody	yes
Hospital	Shibergan	±2 hours	100 Afs	everybody	yes
Traditional healers / birth attendants	Qush Tepa	--	--	--	--
Skilled birth attendant	Sar-i Pul	±1 hour	100 Afs	women	yes
Private doctor	Sar-i Pul	±1 hour	100 Afs	everybody	yes

Water Sources for Household Use

The people of Qush Tepa obtained water from a variety of sources. The primary source was from the river, diverted into small streams that weave through individual compounds. The villagers also use water collected in pools, open wells, and hand-pumped wells. Men and children are primarily responsible for bringing the water from the wells, but women also collect water. Access to water was not a problem for Qush Tepa, but households noted that recently there has been less water available in the open wells and hand pumps, even after accounting for seasonal variations.

Drinking Water Sources (in order of use)	Time taken for water collection	Quality Δ since last year	Quantity Δ since last year
River	< 1 hour	same	same
Pools	< 1 hour	same	same
Wells	< 1 hour	same	decreased

Sanitation Facilities

Toilet facilities for household use in Qush Tepa were quite varied. About half of the people did not have toilets at all and used open areas. Nearly 30% of households had traditional toilets, often allowing excrement to overflow into communal space. Nearly 20% had vault latrines. Finally, 1 household had an improved and ventilated pipe toilet. The toilet facilities in Qush Tepa were so varied because people had experienced different levels of hygiene standards while they were overseas or in refugee camps. And even though some people knew about the relationship between sanitation and disease, they either chose to not spend their limited resources on improved toilets or had no resources to do so.

CONCLUSION: RISK TO LIVES

Mortality and malnutrition rates in Qush Tepa were relatively low, except among women of childbearing age. Alarmingly, morbidity rates among children <5 were extremely high. Health services were accessible year round, within a reasonable distance, and within the budgets of most Qush Tepa households so they should have been able to treat different diseases and conditions. Considering the quality of health services and the recent outbreaks of cholera and measles, the high incidence of diarrhea and the low incidence of measles vaccination suggest that complacency may be a factor in Qush Tepa about these risks to lives.

QUSH TEPA LIVELIHOOD SECURITY

Livelihood security indicators focus on the livelihood strategies of households within a community. They reveal livelihood assets related to particular income sources and expose current shocks to livelihood sources as well as households' abilities to cope with these shocks. Analysis of these indicators could provide agencies with sufficient information to decide whether there is a need to respond to a current shock. Finally, examination of coping strategies can identify characteristics of particularly vulnerable households.

Livelihood Strategies

Crop production was the primary source of income for most households in Qush Tepa during the previous 4 months followed by agricultural labor, livestock, formal wage labor, and shops/trade. Most better-off households depended on agriculture, while a few stated that livestock was their most important income generator. Among the middle-income group, 82% of households depended upon agriculture as their main income source and the rest depended equally on agricultural labor and shop keeping. Of the poor households, 65% worked as agricultural labor as their primary source of income, and, after that, agricultural production, livestock and craftwork were most important.

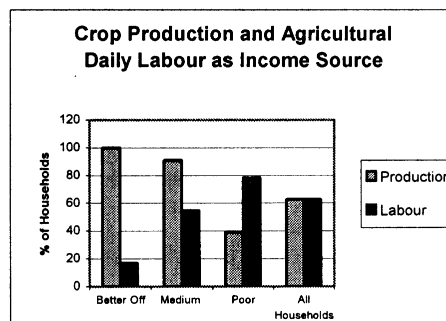
This table below (page 10) captures the proportions of households engaged in each of the different income activities. It is intended to illustrate the relative importance of the different livelihood

strategies to the community. Agricultural production and agricultural labor each provided incomes to 63% of households during the previous 4 months. Loans were taken by 58% of households. Livestock provided income to 53% of households. Gleaning helped 40% of households meet their needs. Wages from spinning wool, making hats, and embroidering provided income to 33% and another 13% made money operating their own handicraft businesses. During the previous 4 months 10% received income from formal wage labor and 10% earned income from repayment of loans.

Data on women's income activities show the role of women in current livelihood strategies, and provide information that men may have left out or not have been aware of when commenting on household income.

Household Income Activities	% of households with income earned by men and women from activity cited at left (per men)	% of households with income earned by women from cited activity (per women)
Agricultural production	63	--
Agricultural labor	63	--
Taking a loan	58	38
Livestock	53	--
Gleaning	40	8
Wool/handicrafts labor	33	40
Wool/handicrafts business	13	15
Formal wage labor	10	3
Repayment of loans	10	3
Shop keeping	5	5
Sale of wood and dung for	5	--
Trees and vineyards	5	--
Remittances	5	--
Non-agricultural labor	3	--
Rental income	3	--

According to the women's reports, 40% of all households had women making handicrafts or spinning wool for a wage and 15% produced these items for direct sale. A full 38% of women mentioned a loan as a household income source during the survey period. Only 8% of households listed women's participation in gleaning as an income source. Between 3% and 5% of women reported their households earning income from running a shop, working for a formal wage, and receiving repayment of loans.



Crop Production and Agricultural Labor

Crop production is the most important income source for the people of Qush Tepa, with 63% of all households deriving an income from it and 48% citing it as their primary income source. In addition, 63% of households derive an income from agricultural day labor, with 40% citing it as their primary income source. Crop production was far more important for the better-off and the middle-income groups than it was for the poor. Agricultural labor mostly supported the poor, followed by the middle-income, with very little benefit to better-off households. During the previous 4 months, 66% of poor households had their primary source of income from agricultural labor.

The main food staples grown in Qush Tepa are rainfed and irrigated wheat and barley. Flax, sesame, sweet melons, watermelons, and beans are the minor crops. The following table shows the crop calendar for Qush Tepa. Irrigated wheat is planted in the winter and the spring and is harvested during June and July. Rainfed wheat is much less important in this area. It is planted in November and December and harvested in July and August. Barley is planted in March and harvested in June. Flax and sesame are planted only in the spring so they are harvested later, in August, September, and October. Irrigated winter wheat is planted with 3.5 to 4.0 *seers* of seed per *jerib* and irrigated spring wheat is planted with 5 *seers* per *jerib*. Rainfed wheat is planted with 2 *seers* per *jerib*.

Crop Calendar	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfed Wheat												
Irrigated Wheat												
Barley												
Flax												
Sesame												
			Spring Planting				**Harvest**			**Winter Planting**		

Crop Production Assets: Land Ownership and Draft Oxen

Land ownership is the key livelihood asset for agricultural production. Land ownership patterns are listed in the following table. People in Qush Tepa have two kinds of land documents: formal *shar'ee*

documents from the courts kept in Sar-i Pul, and informal *urufi* documents from the village leader and *mullah*. Village leaders said that during the drought, 5 to 7 households lost a small portion of their land, but no one had to sell large tracts.

Land Ownership	All Households	Better-off	Medium-income	Poor
Households owning land (%)	**40.0**	**83.3**	**72.2**	**13.0**
Average amount of land owned (*jeribs*)	33.0	56.0	21.9	10.0
Households owning irrigated land (%)	**40.0**	**83.3**	**72.2**	**13.0**
Average amount of irrigated land owned (*jeribs*)	12.7	16.0	11.4	10.0
Households owning rainfed land (%)	**12.5**	**33.0**	**27.0**	**0**
Average amount of Rainfed land owned (*jeribs*)	21.0	35.0	11.7	0
Households with land access reduced to mortgage or sale (%)	**0**	**0**	**0**	**0**
Households owning ≥ 1 draft oxen (%)	30.0	66.7	54.5	8.7

In Qush Tepa, 40% of households own land and the average landholding is 33 *jeribs*. Landowners include 84% of the better-off, 73% of the middle-income, and 13% of the poor, with the size of holding decreasing from better-off to poor wealth groups. The proportions of rainfed to irrigated lands increase from poor to better-off wealth groups, with poor households owning no rainfed land and the better-off owning more than twice as much rainfed as irrigated land. Middle-income households own nearly equal amounts of rainfed and irrigated land. In Qush Tepa, 40% of households are sharecroppers or rent land. In the previous 4 months, no household in Qush Tepa mortgaged land and no households had less access to land than they did in previous years.

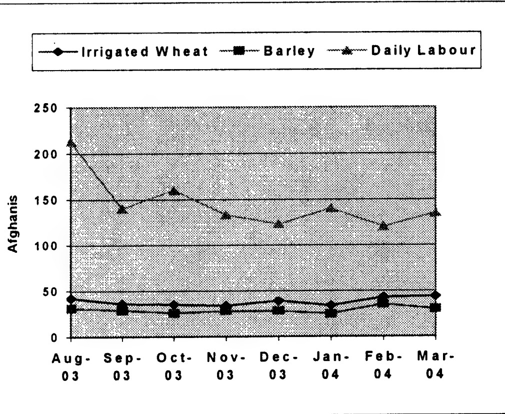
Draft oxen and, increasingly, machines (threshers, wagons, tractors, combines) in some areas of Afghanistan, are extremely important for medium and large-scale crop production. In Qush Tepa, a few families have tractors, but there were no other large machines owned by any of the households surveyed. However, 30% of households own draft oxen: 67% of the better-off, 55% of the medium-income, and 9% of the poor.

Access to Water

Irrigation water flows from the river, which is 6 km away. The water flow is managed by two villagers called *mirabs.* The community of landowners pays 300 *seers* of wheat and 300 *seers* of barley to the two *mirabs* annually. Each household is allotted 8 minutes of water per *jerib* every 20 days. The village leaders are managing the water rights system, but they believe it should be managed by the Ministry of Irrigation. The leaders also mentioned that a dam near Qush Tepa was destroyed more than 15 years ago. They are interested in rebuilding it because it allowed the village to irrigate an additional 300 *jeribs* every year.

Shocks to Agricultural Yields

Although 33% of households mentioned that they faced crop losses in the last growing season, these losses were minimal and may have been part of normal agricultural variation. Only 1 household lost between 20% and 50% of its irrigated wheat. The losses for the rest of the households all fell below 20%. The reasons for most losses were weeds and rats, though losses to smut, hailstorms, insects, and a shortage of irrigation were also reported in the area. A severe late frost destroyed nearly all the fruit tree crop in 2003.



Market Prices of Agricultural Goods

Market prices of agricultural goods in the Sayyed Abad area were taken from the nearby Sar-i Pul market. Wheat and barley prices were nearly constant from August 2003 through November 2003. Prices started at 42 Afs per *seer* during the peak of the local harvest season then dipped to 34 Afs by November. By March 2004 they were back at August levels, selling for 44 Afghanis per *seer* in the market.

During this same period, daily labor prices fell from 213 Afs during harvest season to about 140 Afs in November. Agricultural labor prices in this area were extremely high in 2003, because there was a

high demand for labor to harvest both a record cereal crop and poppy crops. [4]

Fruit Trees, Vineyards, and Cash Crops

Though only 5% of households list fruit trees and vineyards among their 3 most important livelihood sources, these contribute to the incomes of a number of households. The local production of fruit also contributes to fruit consumption within the households, enhancing dietary diversity. Better-off and medium-income households raise most of the fruits, trees, and vineyards. Poplar is the most important tree as a cash crop, followed by mulberry, apples, and apricots; 3% of house-holds had peach, plum, and pomegranate trees or grape vines in Qush Tepa. The year 2003 was a bad year for fruit production in the area and very little fruit was harvested because a severe late frost destroyed the buds.

Tree Ownership	% of household	Average # of trees owned	Range of ownership	% of households with 20%-50% of crop destroyed	% of households with >50 % of crop destroyed
Poplar	35	1089	10-10,000	18%	--
Mulberry	13	23	2-120	--	7.7
Apple	5	13	3-25	--	20
Apricot	4	9	2-20	--	25
Peach	3	2	2	--	--
Plum	3	5	5	--	100
Pomegranate	3	3	3	--	100
Grapes	3	4	4	--	100

Livestock

Livestock ownership is a source of income for 53% of households surveyed but is the primary income source for only 5%. Livestock are kept by 83% of better-off, by 64% of middle-income, and by 39% of poor households.

The following table shows the average ownership of livestock according to wealth group. The most important animal for the households of Qush Tepa is the donkey, which is used ubiquitously as a beast of burden. Oxen, as previously mentioned, are mainly used for plowing. Sheep, goats, and cows provide wool, meat, and milk.

A 2002 study showed that animal numbers decreased drastically during the drought years. Livestock numbers are slowly climbing, but still are not close to the pre-drought figures. During the 4 months before the survey, people were not buying livestock and the net loss exceeded the net gain.

Livestock Ownership	Goats	Sheep	Draft Oxen	Bulls	Cows	Donkeys	Horses	Camels
Average # of livestock owned by better-off households	3.0 (2 hh)	15.0 (3hh)	1.0 (4hh)	1.0 (1hh)	3.0 (2hh)	1.3 (4hh)	1.0 (1hh)	--
Average # of livestock owned by medium-income households	4.6 (5hh)	15.5 (4hh)	1.2 (6hh)	1.0 (3hh)	2.0 (4hh)	1.2 (9hh)	--	--
Average # of livestock owned by poor households	7.0 (2hh)	6.0 (3hh)	1.5 (2hh)	--	1.8 (6hh)	1.1 (17hh)	--	--
Overall average # of livestock owned	4.8 (9hh)	12.5 (10hh)	1.2 (12hh)	1.0 (4hh)	2.1 (12hh)	1.2 (30hh)	1.0 (1hh)	--

hh = household

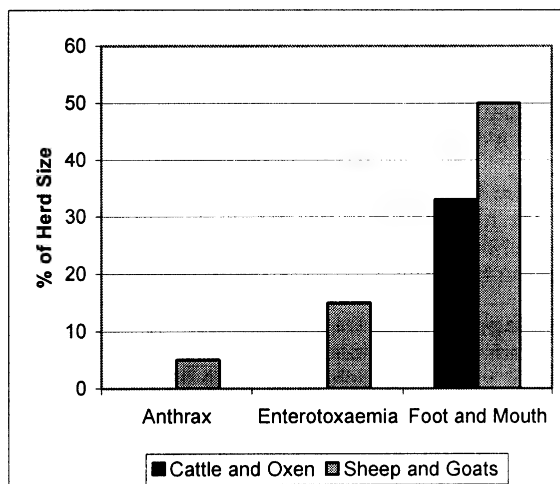
Data suggest that households are continuing to recover from the drought as indicated in the table below, which shows households and their livestock in a normal year, in the drought year of 2002, and in 2003. Sheep numbers decreased by one third from 2002 to 2003.

[4] Poppies in this area were grown by many of the households that owned land. However because the government said that they would destroy the crop in early 2003, households were reluctant to invest a lot in the crop. Each *jerib* of irrigated or rainfed poppies produced at least 2 kg of raw opium. One kilogram sold for between 500 and 600 USD.

Livestock Ownership Comparison	Goats	Sheep	Draft oxen	Cows	Camels	Donkeys
Households with livestock (%) in normal year	**38%**	**68%**	**35%**	**35%**	**23%**	**43%**
Average # of livestock owned	7.7	50.1	1.7	3.5	0.8	2.0
Households with livestock (%) in 2002 in a drought year	**40%**	**38%**	**15%**	**20%**	**18%**	**53%**
Average # of livestock owned	1.6	12.5	1.6	0.9	0.1	1.2
Households with livestock (%) in 2003	**23%**	**25%**	**30%**	**30%**	**0.0%**	**75%**
Average # of livestock owned	4.8	12.5	1.2	2.1	--	1.2

Livestock Disease

According to owners, 33% of all cattle in Qush Tepa had foot and mouth disease. Foot and mouth is a highly contagious disease, so this outbreak should be investigated. There are 2000 sheep and goats owned by the people of Qush Tepa, of which 15% were infected by enterotoxaemia, a deadly disease with the primary symptom of sudden death. Anthrax, a highly contagious disease that kills within 24 hours, reportedly infects 5% of the sheep and goats. There is a veterinary hospital in Shiberghan and veterinary medicines are available. No animals had been vaccinated during the previous 4 months.



Grazing Land and Access to Water

According to village leaders, access to grazing land in Qush Tepa had not changed in the previous year. However, they do state that the productivity of the existing grazing lands is less than normal because there was not enough water when the grass was emerging. Access to water for the livestock remains consistent. Access to grazing land in the village is independent of economic status.

Embroidery, *Gilims*, and Spinning of Wool and Silk

Wool spinning, hat making, embroidery, and *gilim* weaving are important sources of income for households, and especially for women, in Qush Tepa. Craftwork is performed for a wage or for business profit. Craftwork is a self-owned business that is an income-earner for 13% of households. In addition, at least 33% of all households perform craftwork for a wage. Women report that it provides income for 40% of households. In Qush Tepa, wool spinning is the most important of craftwork with 67% of better-off, 40% of medium-income, and 42% of poor households involved. Wool embroidery provides income for 18% of households. *Gilims* are produced by 10% of households.

The average incomes earned from each source are listed in the table below. A breakdown of income by wealth group for craftwork reveals that the average income over the previous 4 months from wool spinning for the better-off households was 525 Afs, with medium-income households earning 263 Afs, and the poor earning 263 Afs. The breakdown for handicrafts is 430, 500, and 1,063 Afgs for the better-off, medium-income, and poor households, respectively. Making *gilims* brings in a lot more money, but takes more time. The average income for *gilim* making during the previous 4 month period for the better-off and the poor households was 4,500 and 1,600 Afghanis.

Income Sources	Household income source (n)(%)	Average income earned in last 4 months (Afs)
Wool spinning	18(45%)	321
Handicrafts	7(18%)	811
Carpets / *gilims*	4(10%)	3, 050

Reported incomes from the business of craftwork varied and did not show any trend. In households involved in such activities for a wage the income seemed to decrease for some, while it stayed the same and increased for others. There was no ambiguity about the sale price of completed *gilims*, with 100% saying that the prices had dropped. This drop is attributed to cheaper imported wool used for making the *gilims*. The time spent making *gilims* stayed the same for 25% of households, decreased for 50%, and rose for 25% of households surveyed.

Collection and Sale of Natural Resources
Only 2 Qush Tepa households were involved in the collection and sale of wood, bushes, and dung for fuel. This work is usually not done during the harvest season and is restricted to the period when there is little agricultural work. Both dung and wood are more expensive in winter when there is a greater need for fuel, however, fewer people are involved in collection during this period. Livelihoods from wood and dung collection were harmed during the drought because there were fewer animals producing less dung and the lack of rains discouraged bush growth. The village did not consider either of these resources to be at risk in the future because the village's animal stocks is being replenished and the bushes are expected grow back when it rains since they are cut above the root system.

Shops
In Qush Tepa, 5% of households ran shops in the village to contribute to their income. These households had the cash to finance required stocks, the skills to negotiate prices, and the ability to keep accounts and inventories. Most shops are simple groceries that stock household items like food and soap. In the previous 4 months, the income from shop keeping decreased for 1 household and remained the same for the other.

Formal Wage Labor
Of the households surveyed, 10% earned part of their income from formal daily labor by working in the school as teachers or attendants. All households mentioned that during the previous 4 months income from this source remained constant.

Non-agricultural Day Labor
In Qush Tepa, 1 household earned income from non-agricultural day labor. This work involved any sort of job that people needed to have done in their households. Income from this source increased in the previous 4 months, suggesting that better-off households had stable enough income to hire extra help for their homes.

Rental Income
One better-off household in the village earned money from renting its tractor.

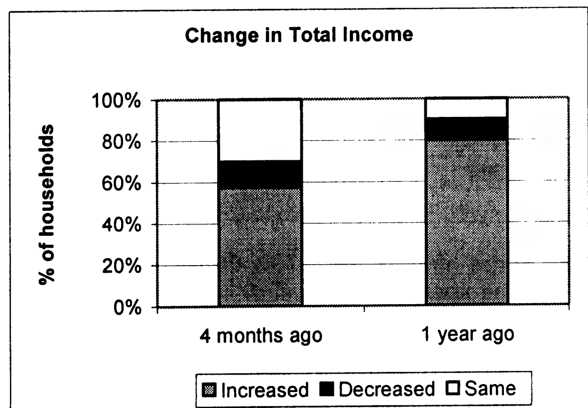
Remittances
In Qush Tepa, 2 households received remittances from family members working in Iran and Pakistan. During the previous 4 months, the amount received increased for 1 household and decreased for the other.

Loans
A significant number (58%) of households surveyed reported having received a loan in the previous 4 months. Loan recipients were from all 3 wealth groups. Some loans were taken from village shops as food to be paid for at a later date. In other instances, loans were taken for investments such as building or repairing a house. Early 2003 data show that only 6% of households had taken loans, and the discrepancy may be due to differing definitions of 'loan'.

Another 10% of households said they received repayment of loans during the previous 4 months. Most of these households were better-off households, but the some poor households were repaid also.

Gleaning
As an income source, 40% of households mentioned gleaning. These households were from all three economic groups and 13% of households noted it as their secondary source of income during the previous 4 months, a harvest season.

Capacity to Cope: Coping Strategies
The graph on the right shows that during the previous 4 months net income decreased for 13% of households; and, during the last year, decreased for 10% of households. Of these latter 4 households, 3 were poor. This means that the net income had improved or stayed the same for 90% of households over the previous year. The only income source that seems consistently to show a decrease in the previous 4 months was *gilim* weaving, both as a business and for a wage. Additionally, poor households mentioned that they received fewer gifts and *zaqat*. This



Income Diversity and Capacity to Cope: Risk to Livelihoods

Average income diversity score	
Better Off	5.3
Medium	3.7
Poor	3.2
All households	3.7

The diversity of income sources can be scored using a method similar to the one used to assess dietary diversity. Apparently, households in the Qush Tepa area engaged in a variety of livelihood strategies, protecting them from livelihood shocks. They had an average income score of 3.7[1] and income scores increase with wealth.

Although only 40% Qush Tepa households owned land, the main livelihood sources in the area were based on agricultural activities, either crop production or daily agricultural labor. Households were particularly vulnerable to exploitive relationships through sharecropping or through casual labor arrangements because land was owned by so few households. Women were engaged in money-making activities, such as making handicrafts and *gilims* allowing households that did not have able-bodied male members to have a viable income source.

CONCLUSION: LIVELIHOOD SECURITY SUPPORT

Relative to the two other sentinel sites in Sayyed Abad, Qush Tepa village and the surrounding villages seem to be doing well. Households have developed, and continue to develop, effective behaviors to buffer themselves against poor harvest years, without too much loss to livelihood assets. Over the last 25 years, one of the main strategies has been migration in times of drought and insecurity.

Options for supporting socially-acceptable livelihood outcomes are presented in the table below. These options are conceptually arranged to illustrate how they would support five categories of livelihood assets.[2] Before initiating any of these projects the broader political and social context in which these communities work needs to be further explored to understand if the projects are truly possible. Potential spill-over effects, including the constraints imposed by the seasonality of agricultural labor demands, deserve serious consideration. In an open-ended discussion about how the government and other agencies could support their communities, about 80% of women requested handicraft and *gilim* projects. Village leaders also mentioned they would like to rebuild a dam that was destroyed 25 years ago and that allowed the village to irrigate an additional 300 *jeribs* every year. However this project must be analyzed for according to beneficiaries and profit distribution.



[1] An income diversity score is simply a count of the number of income sources for each household.

[2] The 5 categories are taken from the DfID Livelihoods Framework model and the format of the table is based on work done by Adam Pain in "Livelihoods Under Stress in Faryab Province" (2001).

suggests that most households in the area did not experience any major livelihood shocks in the last year and that some households' livelihoods were, perhaps, on a rebound after the drought. Still, a total of 10% with decreased income since 1 year ago was surprising given the better harvest and the improvement in general economic conditions in the area.

Information collected on coping behaviors that can signal declining livelihood and food security corroborates these findings. The coping strategies listed in this section do not include all the measures/steps that households can take to survive tough times. Instead, they include only those strategies that are easily measured. The list has been divided into erosive and non-erosive coping strategies to better understand the long-term effects of different choices on a household's future livelihood security. The division is not mutually exclusive. The order in the list does not reflect a continuum of increasing desperation. The non-erosive strategy list does attempt to capture some adaptive strategies such as livelihood adjustments, income diversification, or consumption rationing. Finally, the coping strategies in the lists are to be considered options that, when chosen, signal a worsening situation. However, the listed strategies may also capture the behavior of vulnerable and chronically poor households that have no options and engage in these activities because they have to on a regular basis.

Non-Erosive coping strategies (last 4 months) (n=40)	%
Migrated for labor	3
Begging	0
Worked more hours to make daily expenses	68
Borrowed food from relatives to make a meal	83
Sold carpet / *gilim* from the house	8
Sold house furniture	0
Sold house part (windows, doors, roof beams)	0
Sold bicycle	0
Sold jewelry	0
Sold motorcycle / car	0
Ate dried bread	5

Non-erosive coping strategies

The results from monitoring coping behaviors did not signal a sign of declining livelihood security in this area. Only 3% of households had members migrate for labor during this period, which could be considered normal behavior for harvest season. Having 68% of households work longer hours to meet daily expenses during this period was consistent with findings from other areas and seemed natural during harvest. Additionally, having 83% of households borrow food from relatives to make a meal was also consistent with findings from other sites, suggesting that this behavior is normal for households and does not necessarily signal declining livelihood security.

Consumption patterns and food sources themselves are also key indicators of household vulnerability. In this sentinel site, 5% of the families interviewed were eating dried bread. These households were poor households and either had experienced a recent downturn in livelihood security or constantly ate dried bread and rationed their food intake to survive.

Erosive Coping Strategies (n=40)	%
Took a loan (men)	58
Took a loan(women)	38
Sold or mortgaged land, house or shop	0
Took food on credit from local shop for a meal	25
Sold sewing machine to pay for food	3
Sold loom to pay for food	0
Sold handcart to pay for food	0
Sold grinder to pay for food	0
Sold tractor/combine/other agricultural machinery to pay for food	0
Married daughter early	0
Sent son(s) to work as indentured labor	0
Sent son(s) to military	0

Erosive and Distress Coping Strategies

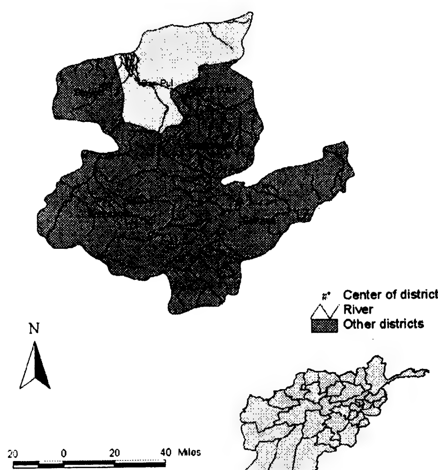
Besides the usual coping mechanisms used to meet daily expenses, none of the households chose options that are potentially erosive to future livelihood. Men noted that 58% of households took out loans. However, these loans were repaid as soon as possible or were invested in asset accumulation such as reconstruction of homes, a signal of livelihood improvement.

OPPORTUNITIES FOR SUPPORTING SOCIALLY ACCEPTABLE LIVELIHOODS				
Capital base	**Asset**	**Means**	**Group**	**Livelihood outcome***
Physical	Wool spinning	Introduce and support more efficient ways of wool spinning: such as wool spinning machines	women	Increased income for women and households
	Improved seed	Introduce improved seed for rainfed and irrigated wheat. Develop a seed base for the commercial production of cumin	crop producers	Increasing crop production
	Closed wells	Increase the number of closed wells and have hand pumps.	all groups	Improved access to clean water
	Livestock vaccines	Establish a veterinary service in Sayyed Abad Center	livestock owners	Increased livestock numbers
	Drinking water for livestock	Build dands in the hills for rainwater catchment during the winter and spring.	all groups	Improved access to water for livestock and other uses
	Latrines	Promote the building of more vault latrines in the village	all groups	Improved hygiene, less disease
	Grain storage facilities	Build better grain storage facilities to protect grain stocks	crop producers	Less damage to grain stocks
Financial	Credit	Provide small individual credit and group credit for local investments	all groups	Improved production of small scale cottage industry; improved income from community assets
Human	Human health	Promote regular attendance for preventive health care at the clinic in Sayyed Abad Center	all groups	Vaccinations; treatment of people and decrease of mortality and morbidity
		Train local women in safe birth practices	women	Prevent maternal mortality
		Repeat Measles campaign	children	Prevent measles outbreak
		Implement a health education program	all groups	Improved health and hygiene practices
	Education	Support teachers to improve their quality of teaching for improved learning	all groups	Improved learning
Social	Already existing village social structures for group projects	Run projects through existing social structures	all groups	Strengthened social structures supporting community in the future
	Safety net institutions at district level	Implement food-for-work or cash-for-work projects through district administration	men	Strengthened government structures supporting political and economic processes

*This column includes the livelihood outcome or at least the initial step that will link the activity to increased/improved livelihood outcomes.

	National Surveillance System (NSS) Transitional Islamic State of Afghanistan	Sayyed Abad District Gajar Qudok Sentinel Site
Sar-i Pul Surveillance Unit	Ministry of Rural Rehabilitation and Development, Ministry of Agriculture and Animal Husbandry and Ministry of Health	Fall 2003

Saripul Province



SUMMARY FINDINGS: GAJAR QUDOK

Food Security

- In 2003, cereal harvests were better than in 2002
- 23% of households felt they did not have enough food during the previous 4 months
- Households solely dependent on manual labor wages felt the need to borrow money to survive the winter
- Dietary diversity was a concern for some households in Gajar Qudok

Risk to Lives

- Maternal nutritional levels showed that 15.4% of women risked malnutrition and 7.7% risked acute malnutrition
- Morbidity patterns in children <5 were very high (watery diarrhea: 43.6%, bloody diarrhea: 10.3%, ARI: 66.7%)
- 90% of households did not have any toilet facilities

Livelihood Security

- Agricultural day labor wages remained high from June, reaching a peak in November
- 13% of households said they had less income than 4 months earlier
- 10% said they had less income than 1 year ago
- 70% of those growing barley lost over 50% of the crop to cereal smut, insects, and rats
- Many households benefited from poppy cultivation

Contents **Page**

What is the NSS?
The National Surveillance System monitors trends in key indicators to predict early signs of change and deterioration in food security, nutrition, and livelihoods. In conjunction with complementary data collection systems, the NSS provides relevant data for prioritizing limited resources and designing programs.

Methodology
The NSS is based on a sentinel site system, in which provincial level ministries follow a rotating cohort of households over time. Sites are selected so that they mirror the majority of the communities with respect to agro-ecological features, economic activities, available services, and people in a given area known as a livelihood or agro-ecological zone. Information from the sentinel may not be representative of every village in the zone because of the diversity of livelihoods in Afghanistan. However, it is likely that the data from one sentinel site can signal concern for other villages in the same zone (See Annex I for detailed information on methodology).


Save the Children.
The Sar-i Pul Provincial Surveillance Unit is supported by Save the Children USA and funded by DFID

REPORT OBJECTIVES

This document has several objectives. First, it intends to report information coming out of the National Surveillance System standardized methodology. Therefore, this report provides:

- current information on household food security status in Sayyed Abad District,
- information on risk to lives and nutritional risk to individuals in Sayyed Abad District,
- information on the current household livelihood security situation in Sayyed Abad District, specifically looking at current shocks to livelihoods and the ability of households to adapt to these shocks, and
- better understanding of the vulnerability and risk of communities and households in Sayyed Abad in relation to issues of food security, mortality, health, and nutrition.

Secondly, this report provides baseline information on indicators that are unique to a local area but had never before been explored in the depth needed for use in guiding programs and policies. These indicators reveal:

- characteristics of household wealth in Sayyed Abad District;
- the presence of malnutrition, morbidity, and mortality in rural communities in Sayyed Abad District; and
- types of livelihood strategies employed in Sayyed Abad District.

Finally, the report aims to suggest how government and other agencies can use this new understanding about livelihoods, vulnerability, and risk for designing and prioritizing program interventions and effective policies.

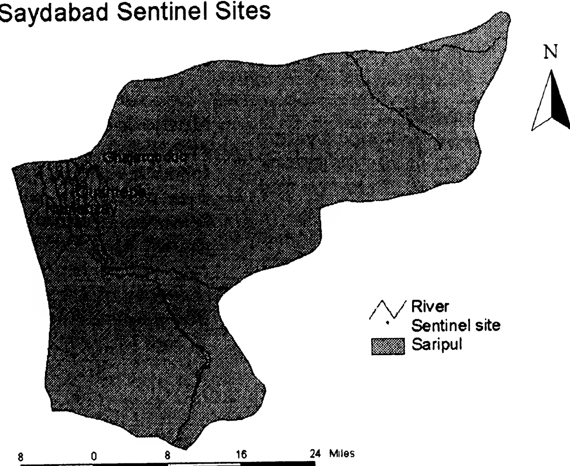
SAYYED ABAD DISTRICT LIVELIHOOD ZONES

Sayyed Abad District is located in the northern part of Sar-i Pul Province. It was formed in 1989 from sections of Sayyad and Sar-i Pul districts in Sar-i Pul Province and from Shiberghan District in Jawzjan province. The provincial government recognizes Sayyed Abad as an independent district, but the central government does not. As a result, Sayyed Abad does not appear as a separate district on maps. Sayyed Abad means "built by Sayyed".[1] Sayyed Abad town is the official district center housing the governor, the police unit, and the district administrator who collects taxes. The district of Sayyed Abad has continuously been under the Jumbesh political party, although other districts in Sar-i Pul Province are not.

Sayyed Abad has rolling valleys and plains. The district lies at the end of two major snowfed rivers coming from Kohistanat and Sangcharak districts that provide water for extensive irrigated agriculture in the valleys. The rainfed agricultural land is found on the hilly areas and on some parts of the valleys. The hilly areas sit at an altitude of between 400 to 600 meters.

Zone 1: Intensive Irrigated Land (30 villages): Qush Tepa

Livelihood Zone 1 is central to the district and envelops the river valleys and the lower slopes of the valleys where irrigation channels run. The great amounts of available water allow a variety of crops. The people are from many ethnic groups: Pashto, Hazara, Turkmen, Uzbek, and Tajiks. A large number of people left during the years of conflict, but many returned during the last year. Most communities have schools, although fewer have school buildings. There is good access to the main road between Shiberghan and Sar-i Pul town.



Zone 2: Livestock and Rainfed Agriculture (15 villages): Gajar Qudok

Livelihood Zone 2 contains villages found on the upper slopes of the hills. Most households rely on rainfed agriculture and livestock as their primary sources of income. Mostly Arabs, they occupy small isolated communities made up of many new returnees. Some communities have newly established schools in tents and they obtain their water from wells.

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[1] Sayyed is a family lineage related to the Prophet Mohammad.

Zone 3: Grazing Land and Rainfed Agriculture (nomadic populations) (5 villages): Namanzai
Livelihood Zone 3 is located in the western section of Sayyed Abad District where the land starts turning into desert. The primary livelihood of these people is livestock, but some of the households also engage in agricultural production. They are either nomadic or semi-nomadic populations of Pashto living in isolated communities. They leave their communities in the spring for the adjacent grazing lands of the Dashti Layli (desert) and return in autumn. They have limited access to education and they obtain water from the river.

GAJAR QUDOK GENERAL INFORMATION

Background Geography

Gajar Qudok, the village representing the rainfed agricultural area of Sayyed Abad, is roughly divided into two communities based on the attendance at two different mosques. There are a total of 92 families in the village, ten of which returned during the four months prior to the survey. The average household size in the village is 6.9 people, which is higher than the Afghanistan average of 6.1. The people from this area are all Arabic and speak Dari or Farsi.

The village selects a leader or *kariador*. All village-level decisions are made by the *kariador* in consultation with the village elders. The village has administrative links to the district center of Sayyed Abad through the *kariador* and villagers go to the governor for any dispute resolution that cannot be settled in the community. One tenth of the harvest is paid as an informal tax, in some places to the Governor and in others to the local commander for protection.

The village has a primary school with grades 1 and 2 inside a mosque that is easily accessible to the children. About 30-35 boys and girls attend this school that has two teachers, one for each class.

Average household size	
Better-off	**7.8**
Medium-income	**8.0**
Poor	**6.3**
All households	**6.9**

The community divided households into three different wealth groups, or socioeconomic categories. The following table describes the type of features characterizing each wealth group and the percent of households falling into each category. These wealth groups will be used throughout the report to understand how food security, risk to lives, and livelihood security may be different for households of different socioeconomic status. There is not a large difference between the Better-off and the middle-income households in Gajar Qudok. The village has decided on a limit but households are clustered around this margin with no stark differences.

Assets and Activities	**Wealth Group**		
	Better Off (10%)	**Medium (30%)**	**Poor (60%)**
Male Group perception			
Land (Rainfed)	80-100 *jeribs*	50 *jeribs*	3-5 *jeribs*
Sheep/goats	70-80	40 - 50	5-10
Camel	1	0	0
Donkey	2	1	1
House	has	Has	does not have
Milk cow	1-2	none	none
labor	people work for him	does his own work	works for others
Glim	has	has	has
Zaqat	give *zaqat*	give *zaqat*	receive *zaqat*
Female Group perception			
Land	40	20	2
Sheep/goats	300	20	none
Camel	4	1	0
Donkey	2	1	1
Labor	people work for him	does his own work	works for others
Gilim	has	has	has
Zaqat	give *zaqat*	give *zaqat*	receive *zaqat*
Milky cow	none	1	none
Jewelry	none	none	none

Local Perceptions of Socioeconomic Status / Wealth

Better-off households: 13.3%

A rich person has about 50 to 80 goats and sheep, 100 jeribs of irrigated land, 1 house, 2 camels, and 2 oxen. -women-

A rich person has about 100 goats and sheep, 100 jerib of irrigated land, a house, 2 oxen for plowing the land. -men-

Medium-income households: 23.3%

An average household has 40-50 goats and sheep, 20 jeribs of irrigated land, 2 oxen, 1 house, 2 donkeys, and they have money to cover expenses for about 1 year -women-

An average household has 20-30 goats and sheep, 10 jeribs of irrigated land, 1 house, and 2 oxen. -men-

Poor households: 63.3%

A poor person has 2 donkeys, some have 1 house, some do not, work as daily laborers...most income from this. Some have food for a year but most do not have this...they take loans from others. -women-

A poor person has 5 goats and sheep, all have 1 donkey, some have 1 house, but it is a small house. Work as labor all the year around. -men-

GAJAR QUDOK FOOD SECURITY

Certain indicators reveal information about access, availability, and quality components of food security. Monitoring these indicators can track changes in food security at a sentinel site, identify households' current food security status, and provide information on the nature of any food insecurity.

Market Access

The nearest market to Gajar Qudok is Shiberghan town. Travel to Shiberghan takes about 1.5 hours by vehicle for 100 Afs per person round-trip (same day return). The trip takes 6 hours on donkey or foot so an overnight stay in Shiberghan is necessary and, unless travelers have friends or relatives near Shiberghan, it will cost 100 Afs for a room. Households usually send men to market, which is open on Mondays and Thursdays. The residents of Gajar Qudok sell wheat, barley, lambskin, livestock, cumin, and wool in the market and buy rice, oil, tea, soap, diesel fuel, kerosene for lamps, and other necessities like clothes. Transactions in the market usually take place in cash. The market is accessible at all times of the year, but travel is more difficult in the winter due to the rains and road conditions.

Market location	Time to reach market		Round trip cost	Market accessible in winter and spring?
	Vehicle	Foot		
Shiberghan	1.5 hours	6 hours	100 Afs	yes

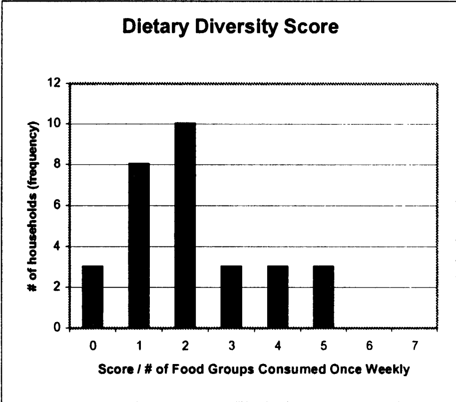
Food Prices

Prices for wheat fluctuated from a high of 50 Afs in January 2003 to a low of 36 Afs during the 2003 harvest. For households that were net consumers of wheat during the survey period, the low wheat prices were beneficial. However, for net producers, this low price was quite harmful. (See the Livelihood Security section for discussion.) The price of other market goods such as kerosene and rice increased throughout the year, and households voiced concern about these rising prices.

Dietary Diversity and Dietary Quality

Dietary diversity is a primary component of food security. Previous studies show that dietary habits in Afghanistan are not very diverse and consequently people are at risk of micronutrient deficiency disorders and related diseases. It is not entirely clear how dietary preferences and available food types interact to determine household dietary patterns. To better understand the quality of diets during the previous 4 months, surveyors asked about the frequency of eating foods from different food groups.

These results were used to create a dietary diversity score to capture dietary quality and to monitor it over time. The diversity score is calculated by attributing a score of 1.0 to each food group that was eaten at least once weekly. Thus households with a higher diversity score have a more diverse diet. Repeated surveys throughout the country indicate that most households consume cereals on a daily basis, so cereals were not included in the diet diversity score. Earlier baseline surveys in the area suggest that most households consumed oil/fat, so this was not included in the score either. On average all households combined in Gajar Qudok had a dietary diversity score of 2.13, with the most households scoring 1 or 2. Diversity scores correlated to wealth group with scores of 3.75, 2.29, and 1.74 for better-off, medium-income, and poor households, respectively. Since some households also had scores of four and five it suggests that food from a variety of food groups is available.



The table below shows average food group consumption frequency during the previous 4 months, excluding Ramadan and festivals, by wealth group. The data show that all households are eating protein-rich foods at least 2 to 3 times a month along with the complex proteins from cereals and pulses. These data do not reveal information about the sufficiency of protein intake.

However, the choice of protein for households differs by wealth group. Better-off households eat meat and milk products about once weekly, whereas medium-income and poor households eat them fewer than 2 to 3 times a month. These results indicate that both meat and milk products are luxury goods for Gajar Qudok households, so a decrease in consumption could signal declining food security and general household poverty levels. On the other hand poor households have a more frequent intake of eggs and pulses than medium-income and better-off households.

During the previous 4 months, no households ate leafy green vegetables. Onions and potatoes were eaten by all households at least 2 to 3 times a month, with better-off households eating them more often. Fruits seemed to be more of a luxury good than vegetables with better-off households eating them more than once weekly and the poor eating fruit once a month or less. Watermelon, cantaloupes, and sweet melons were the only fruit available in Gajar Qudok during the period of the survey.

As data were not collected on quantities consumed, it is not possible to make statements regarding sufficiency of vitamin and mineral intake. Areas of potential concern would be: 1) vitamin A from animal sources, 2) beta-carotene from plant sources, 3) calcium from milk-related products and water, 4) iodine from salt, and 5) vitamin C from fresh plant sources.

Average Frequency of Food Group Consumption by Wealth Group

Wealth group	Meat	Milk, yogurt, *krut*, etc.	Eggs	Pulses	Leafy green vegetables	Other vegetables	Fruits
Better-off	3.8	3.8	3.0	3.0	1.0	4.3	4.5
Medium-income	2.6	2.3	3.0	3.6	1.0	3.6	3.4
Poor	2.4	2.0	3.7	3.8	1.0	3.0	2.2
All households	2.6	2.3	3.5	3.6	1.0	3.3	2.8

1 = Never eat
2 ≤ Once a month
3 = 2 to 3 times a month
4 = Once weekly
5 = Twice weekly
6 = 3 to 5 times weekly
7 = Always

Crop Production

Rural and semi-rural areas in Afghanistan are still highly dependent on subsistence agriculture for their own food needs, so monitoring annual crop yields and amounts planted can help predict the food security situation of households. Crop production is the most important source of income for the people of Gajar Qudok. The main food staples grown there are wheat, barley, cumin, flax, sweet melon, and watermelon. Agricultural production in Gajar Qudok is dependent upon rain as there is no irrigation so high on the hill slopes.

2003 Harvest

The 24 households planting wheat harvested an average of 152 *seers*. The 12 households planting barley averaged harvests of 69 *seers.* Flax, cumin, and melons were harvested in very small quantities. The people felt that the harvest in 2003 was much better than that of 2002 and data from the 2002 confirm this information. The reasons for the better harvest include more rainfall in 2003 and a lack of damaging hail. They received food rations during some part of the year, which freed up money to buy better quality seeds. In addition, some people who had left the village returned in time to help with the harvest. Households were willing to take a risk in 2003 and plant more.

The table on the right shows the average yields harvested by households. It is disaggregated by wealth group clarify the relative differences in food availability by socioeconomic group. Medium-income households produced slightly more wheat than better-off and poor households, but poor households produced more barley in 2003.

Average Yield: **Seers** (1 *seer*=7 kg)	**Rainfed Wheat** *(seers)*		**Barley** *(seers)*	
	2002	**2003**	**2002**	**2003**
Better-off	150	175	25	40
Medium-income	120	185	0	41
Poor	74	136	13	82
All households	**114**	**152**	**11**	**69**
Households planting crop		24		12

Food Security Perception

Household perception of food security is an important indicator of current food security status. In Gajar Qudok, 1 household felt that the food situation was worse than one year ago and 1 household felt the situation was worse than 4 months earlier. Also, 23% of the households felt that they did not have enough food during the previous 4 months.

Perception of Food Security Indicators	% of 30 households
Consider food situation to be worse than 4 months ago	3%
Consider food situation to be worse in comparison to 1year ago	3%
Consider food situation not to be enough in the last 4 months	23%
Worried where their food was coming from at the time of the survey	13%
Think the food situation will be worse in the next 4 months	13%

In Gajar Qudok, 13% of the households, all poor, felt that the food situation would be worse during the next few months. Of the 5 households that worried once a week where their food would come from, 3 were poor and 2 were medium-income families. These poor households were daily wage laborers with no land or livestock, and they did not think they would be able to get enough work over the winter to meet their needs. These households said they would need to borrow money to survive.

GAJAR QUDOK RISK TO LIVES

Indicators monitoring the risk to lives at sentinel sites can signal regions where individuals are more vulnerable and reveal underlying causes of increased risk. These indicators help gain better understanding of relationships involving nutrition, sanitation, morbidity, and mortality.

Mortality Indicators

The crude mortality rate (CMR) in Gajar Qudok of 0.26 was well below the emergency threshold rate of 1.0 deaths/10,000 people/day, and was even below the CMR of a normal developing country rate of 0.5 deaths/10,000 people/day. The 1.33 mortality rate of children <5 was above the 1.0 death/ 10,000 people/day of normal developing countries but below the emergency threshold rate of 2.0 deaths/10,000 people/day.

Of all the deaths among women of childbearing age in Afghanistan, 48% are due to complications during pregnancy or childbirth. Additionally, if their mothers die in childbirth, newborns only have a 25% chance of survival; most die within the first month due to malnutrition.[4] Because of the high rate of maternal and child mortality in Afghanistan, this study also looked at the number of children who had a skilled birth attendant present at delivery as a proxy for risk to lives of both the mothers giving birth and the new infants. In Gajar Qudok, neither of the 2 children born in the previous 4 months had a skilled birth attendant present at birth.[5]

RISKS TO LIVES INDICATORS	%
Mortality indicators[2]	
Crude mortality in last 4 months (deaths/10,000/day)	0.26
Under 5 mortality in last 4 months (deaths/10,000/day)	1.33
Births in last 4 months attended by a skilled birth attendant (n=2)	7.7
Morbidity indicators	
Children <5 years with watery diarrhea (2 week period) (n=39)	43.6
Children <5 years with bloody diarrhea (2 week period) (n=39)	10.3
Children <5 with ARI (two week period) (n=39)	66.7
Children between 6 and 59 months with measles vaccination (n=36)	66.7
Child anthropometric status (WFH % of median and MUAC)	
Children with severe and moderate acute malnutrition, and edema (n=36)	2.8[3]
Children between 6 months and 59 months with edema (n=36)	0.0
Children between 6 and 59 months with severe acute malnutrition (n=36)	2.8
Children between 6 and 59 months with moderate acute malnutrition (n=36) (n=24)	0.0
Children between 1 year and 59 months with a MUAC under 13.5 cm (n=34)	8.3
Children between 1 year and 59 months with a MUAC under 12 cm (n=34)	2.8
Adult women anthropometric status	
Reproductive age women (15-49 years) with a MUAC < 23.0 cm (n=39)	15.4
Reproductive age women (15-49 years) with a MUAC < 21.0 cm (n=39)	7.7
Micronutrient deficiencies	
Households with iodized salt (only includes households with salt) (n=30)	0.0

Morbidity Indicators

Morbidity indicators included in the surveillance system correlate with mortality risk and are the primary causes of death for children <5 in Afghanistan. The 43.6% incidence of watery diarrhea for <5 children is sufficiently high to cause concern. The 10.3% incidence of bloody diarrhea for children <5 is of more serious concern. Sanitation is poor in the village, so many of the cases of diarrhea could be attributed to poor hygiene practices, lack of toilet facilities, and shortage of water.

At 66.7%, the percentage of children <5 suffering from acute respiratory infections (ARI) was also high. Since this survey took place at the beginning of winter, the cooling weather could be partially responsible for this high figure. Poor hygiene practices and the lack of adequate health and sanitation facilities also enhance children's susceptibility to ARI.
According to official statistics, measles vaccination coverage in Afghanistan is 95%, and the Ministry of Health (MoH) reports that Sayyed Abad District has a coverage rate of 49%. The measles vaccination coverage of Gajar Qudok was 66.7%.

Children's Nutritional Status

Using weight-for-height (WFH) percentage of the median, the survey found a global acute malnutrition (GAM) prevalence of 2.8% for children between 6 and 59 months. Almost three percent (2.8%) of the children were found to be severely malnourished (<70% WFH); none was suffering from edema.

Children classified as moderately malnourished by a middle upper arm circumference (MUAC) of <12.0 cm are potentially at risk of death. In Gajar Qudok, 2.8% of the children between 1 and 5 years old were moderately malnourished (<12.0 cm) and 8.3% were at risk of being malnourished (<13.5cm MUAC). These figures along with the weight-for-height percent of median results suggest that acute malnutrition for children in this age group was not a major cause of concern for the village.

[2] The mortality rate was calculated by collecting information on village deaths from the community *mullah*. This method of calculation is being piloted for the Afghanistan context and may be misleading when comparing the figures to standardized WHO mortality rate cut-offs. Thus, the mortality rate should be interpreted with caution until the pilot finding results are finalized.
[3] Malnutrition level assessments are reported based on a small cohort sample and should only be interpreted over time in order to understand shifts in nutritional status. Because the sample was randomly selected, these shifts are meant to reflect shifts in both the larger sentinel site population as well as the livelihood zone population.
[4] MoH Afghanistan/UNICEF/CDC, 2002
[5] Because this question was only asked to female caregivers who had borne a child in the last 4 months, it did not include stillbirths or children who had died during the last 4 months, so there actually may have been more births in the site in the last 4 months.

Adult Women's Nutritional Status

Low MUACs in reproductive-age women have been associated with high maternal and child mortality, making it an important indicator for increased risks to life of adult women. In Gajar Qudok, 15.4% of women have a MUAC <23.0 cm and 7.7 % of women have a MUAC <21.0 cm. These results suggest that women in Gajar Qudok were at risk of being acutely malnourished.

Micronutrient Deficiencies: Iodine

- Presence of iodized salt in the house is a proxy for use of it and for iodine deficiency. Iodine deficiency is linked to the following disorders:
- In all individuals: goiter and loss of energy
- In pregnant women: miscarriages, stillbirths, and mentally retarded children
- In children: impaired mental and physical development, mental retardation, physical deformities, and cretinism
- No households had iodized salt, even though it is now available in the Shiberghan market.

Health Facilities

The following table lists the health services or facilities available to the people of Gajar Qudok. No medical facilities were available in the village, though traditional birth attendants were. Traditional birth attendants receive gifts such as cloth, oil, or flour in payment for services. A provincial hospital with skilled birth attendants and doctors is available in Shiberghan, which is about 1.5 hours away and costs 100 Afs per person for a return trip by car. Poor households usually have to go to Shiberghan by donkey or by walking which takes 6 hours and requires a place to stay overnight. Some basic health services were provided free by the government at this hospital, but most people go to private doctors where they have to pay a fee of 50 Afs. Doctors will accept 20-30 Afs if the patients do not have the money. Patients buy medicine from pharmacies.

Health Services and Facilities	Facility / service provider location	Time to reach facility	Round trip cost	Facility access	Facility access in winter and spring?
Health Posts	--	--	--	--	--
Basic Health Center	--	--	--	--	--
Comprehensive Health Center	Sayyed Abad Afgani	1 hour	--	everybody	--
Hospital	Shibergan	±2 hours	100 Afs	everybody	yes
Traditional healers / birth attendants	Gagar Quduk	n/a	0	women	yes
Skilled birth attendant	Shibergan	±2 hours	100 Afs	women	yes
Private doctor	Shibergan	±2 hours	100 Afs	everybody	yes

Water Sources for Household Use

In Gajar Qudok the only source of water for household use is open wells. There were 15 open wells in the village, but only three of them were sweet and suitable for households use. The rest were used for the livestock. The deepest wells were around 30 meters and the people cannot afford to dig deeper wells. To get water from other sweet wells the people must walk about an hour. Animals are used for carrying the water. Both the quality and quantity of water coming from these wells remained the same over the past year.

Drinking Water Source	Time taken for water collection	Quality Δ since last year	Quantity Δ since last year
Open wells	< 1 hour	Same	Same

Sanitation Facilities

Around 10% of the households in Gajar Qudok have traditional toilets (the excrement falls in an area that is above ground instead of a vault below the ground). The rest of the households do not have toilet facilities and use the areas around the houses and the nearby fields. The lack of sanitation could be linked to the high prevalence of diarrhea and ARI in the village. People were not aware of the links between poor sanitation and disease, and did not seem concerned about sanitation facilities. These people were originally nomadic people who have settled over time. Several of these households, or members of the households, leave Gajar Qudok from March until the end of the summer to graze their animals and, thus, do not have a tradition of dealing with sanitation issues for settled populations.

CONCLUSION: RISK TO LIVES

Mortality rates for people in Gajar Qudok were within acceptable levels for Afghanistan and compared well with rates from other developing countries, except for the mortality rate of children <5, which fell below the normal developing country rate. The nutritional status for children <5 also seemed to be within acceptable levels. However, 7.7% of women seemed to be malnourished, and measurements suggested that another 15.4% of women were at risk of malnutrition. Morbidity rates were also

extremely poor and could well be linked to the poor sanitation in the village. Measles vaccination seemed to be better in this area than for Sayyed Abad, but around 30% of children have still not been vaccinated.

Health services were difficult for people to access, particularly poor households whose members have to walk 6 hours to the nearest facility. Health and sanitation education could decrease morbidity rates. Also, now that iodized salt is available in the Shiberghan markets, households should be taught about the benefit of using iodized salt and encouraged to purchase it.

GAJAR QUDOK LIVELIHOOD SECURITY

Livelihood security indicators focus on the livelihood strategies of households within a community. They reveal livelihood assets related to particular income sources and expose current shocks to livelihood sources as well as households' abilities to cope with these shocks. Analysis of these indicators could provide agencies with sufficient information to decide whether there is a need to respond to a current shock. Finally, examination of coping strategies can identify characteristics of particularly vulnerable households.

Livelihood Strategies

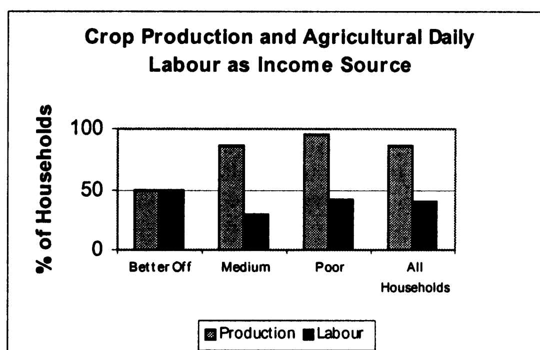
In Gajar Qudok, crop production was the primary source of income for most households during the previous 4 months. After that, households depended on livestock, agricultural labor, formal wage labor, and shops or trade as primary sources of income. Half of the better-off households depended on crop production, while the other half claimed livestock as their most important income generator. Among the medium-income group, 43% depended upon crop production, 29% on livestock, and the rest equally on agricultural labor and shop keeping. Among the poor, 79% had crop production as their primary source of income, followed by formal wage labor, livestock, and agricultural labor.

The table below shows the proportions of households engaged in each of the different income activities. It is intended to illustrate the relative importance of the different livelihood strategies to the community. About 90% of households were engaged in agricultural production and 40% of households had at least 1 member working as an agricultural laborer during the previous 4 months. During this period, 70% of households had income from livestock. Making handicrafts and spinning wool as a business brought income to 70% of households. These livelihood activities, along with other strategies employed by households, will be discussed in detail below. Data on women's income activities uncover the role of women in current livelihood strategies and provide information that men may have left out or not have realized when commenting on household income. Half of all households had women embroidering or spinning wool for a wage and about the same number of households had women involved in making handicrafts or spinning wool as a business. Women received income from loans, collection and sale of natural resources, and running shops.

Household Income Activities (as reported by men and women)	**% of households with income earned by men and women from activity cited at left** (per men)	**% of households with income earned by women from cited activity** (per women)
Agricultural production	87	--
Livestock	73	--
Wool and handicrafts business	70	47
Wool and handicrafts labor	50	50
Borrowing	47	47
Sale of natural resources	43	17
Agricultural labor	40	--
Informal Wage labor	--	--
Gifts/tithes/gleaning	17	7
Formal wage labor	10	--
Loan repayment	10	--
Non-agricultural labor	25	--
Trade / shop keeping	3	3

Crop Production and Agricultural Day Labor

Crop production is the most important income source for the people of Gajar Qudok, with 87% of households deriving an income from it and 67% citing it as their primary income source. In addition, 40% of households derived an income from agricultural day labor, with 6.7% citing it as their primary income source. Crop production was far more important for the medium-income and poor groups than it was for the better-off. However, agricultural labor contributed to all wealth groups without huge differences. The main food crops grown in Gajar Qudok were wheat, barley, cumin, flax, sweet melon, and watermelon. Agriculture is dependent upon rain as there is no irrigation in the area.



The following table shows the crop calendar for the area. December and January are the months for planting winter wheat and the spring planting is in February and March. It is harvested during the months of July and August. Barley is planted in February and harvested in May. Flax and melons are the minor crops planted in the spring and harvested in late summer and early autumn.

CROP CALENDAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfed Wheat	Winter Planting	Spring Planting	Spring Planting				Harvest	Harvest				Winter Planting
Barley		Spring Planting				Harvest						
Flax			Spring Planting					Harvest				
Water- / Sweet Melon				Spring Planting					Harvest			

Crop Production Assets: Land Ownership and Draft Oxen

Land ownership is the key livelihood asset for agricultural production. Land ownership patterns are listed in the table below. As this community sees itself as being predominantly pastoralist, they value their animals more. They have started practicing agriculture only in the last few generations and do not have ownership documents. Ownership is passed from father to son. Unclaimed land that has been plowed by a family for 30 years is allotted to the family by the government. This village has existed for over 100 years, so most families believe that they now own their land.

In Gajar Qudok, 90% of households own land and the average area of their property is 16.6 *jeribs*. A full 100% of the better-off, 100% of the medium-income, and 84.2% of the poor are landowners. The average size of holdings decreases by wealth group with 22.5 *jeribs* for the better-off, 16.4 *jeribs* for the medium-income, and 13.7 *jeribs* for the poor.

Land Ownership	All Households	Better-off	Medium-income	Poor
Households owning land (%)	90	100	100	84.2
Average amount of land owned (*jeribs*)	16.6	22.5	16.4	13.7
Households with land access reduced by mortgage or sale (%)	0	0	0	0
Households owning one or more draft oxen (%)	16.7	50	28.6	5.3

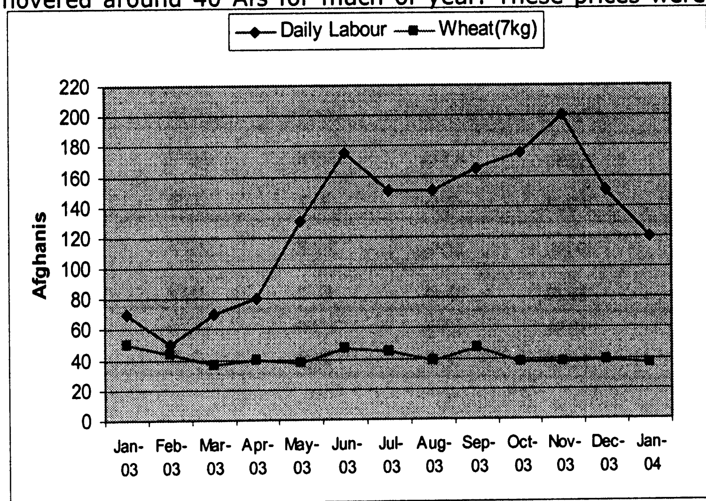
Draft oxen, and increasingly machines (threshers, wagons, tractors, combines) in some areas of Afstan, are extremely important for medium and large-scale crop production. Despite the fact that Gajar Qudok depends so much on its agriculture, there are no large machines owned by any of the households surveyed. However, 50% of the better-off, 29% of the medium-income, and 5% of the poor households owned oxen for plowing, an average of 17% of all households.

Shocks to Agricultural Yields

Although 73.3% of the households mentioned that they faced crop losses in the last growing season, these losses could have been part of the normal agricultural variation. Two households lost between 20% and 50% of their wheat because of smut and rats. The barley crop was more severely affected, with 70% of the barley-growing households losing more than 50% of their crop. The causes of the loss of barley were smut, rats, and insects.

Market Prices of Agricultural Goods

As mentioned earlier, the price of local wheat started near 50 Afs in the beginning of 2003, and then hovered around 40 Afs for much of year. These prices were extremely low for farmers selling their crops, but benefited households buying the grain. When the farmers planned their 2003 wheat crops in fall 2002, prices were between 60 to 70 Afs, so the post-harvest price was a big disap-pointment. Additionally, villagers have no way to store large amounts of grain as elsewhere in Afghanistan, where tradi-tional storage techniques do allow farmers to store wheat for future con-sumption or sale.



Agricultural labor prices were extremely high during 2003, reaching over 200 Afs per day during July and August. Daily labor prices do not necessarily reflect the agricultural labor prices, particularly in larger cities. In the Shiberghan area, however, daily labor prices are affected by the demand for agricultural labor. Therefore, following these daily labor prices gives some insight to the price of agricultural labor in the area. It is clear that daily labor rates were high during the harvest season of June, July, and August of 2003. They remained high until November. Many households in Gajar Qudok grew poppies during 2003, which also increased agriculture labor rates in the area. The main commander in Sar-i Pul is from Gajar Qudok so the village grew poppies with some confidence that their crops would not be destroyed, despite government threats. Since the survey in 2002, the number of cars, motorcycles, and televisions in the village increased conspicuously.

Livestock

Livestock ownership is a source of income for 70% of the households in the area. All the better-off households report income from livestock, with 6 out of 7 medium-income families and 12 out of 19 poor families having livestock contribute to their earnings. Ownership of livestock is the primary income source for 17% of households in the village. Members of a household often leave with the sheep and goats in spring to graze the animals away from the village.

The following table shows the average ownership of livestock according to wealth group. Donkeys are owned by almost all households and are used as beasts of burden. Oxen, as previously mentioned, are mainly used for plowing. Cows, goats, and sheep provide milk and wool.

A previous study in 2002 showed that livestock numbers declined drastically during the drought. The number of animals is slowly climbing, but is still not close to the pre-drought figures. In the 4 months before the survey, people did not buy livestock.

Livestock Ownership	Goats	Sheep	Draft oxen	Bulls	Cows	Donkeys	Horses	Camels
# of better-off, animal-owning households (n=4)	**4**	**4**	**2**	**0**	**4**	**3**	**0**	**4**
Average # of animals owned by better-off households	5.8	27.8	1.0	--	2.3	1.7	--	1.5
# of medium-income, animal-owning households (n=7)	**6**	**6**	**2**	**0**	**0**	**6**	**0**	**4**
Average # of animals owned by medium-income households	4.3	14.3	1.0	--	--	1.7	--	1.0
# poor, animal-owning households (n=19)	**13**	**11**	**1**	**1**	**1**	**17**	**1**	**4**
Average # animals owned by poor households	3.7	8.5	1.0	1.0	1.0	1.4	1.0	1.3
Total # of animal-owning households	**23**	**21**	**5**	**1**	**5**	**26**	**1**	**12**
Average # of animals owned, overall	4.2	13.8	1.0	1.0	2.0	1.5	1.0	1.3

Data suggest that households were recovering from the drought. The table below shows households and their livestock in a normal year, in the drought year of 2002, and in 2003. Trends are difficult to spot. Flocks are still decreasing in size while 'average number owned' of some other livestock are increasing. At the same time, numbers of households owning particular animals are increasing for sheep, goats, and camels and decreasing for oxen, cows, and donkeys.

Livestock Ownership Comparison	Goats	Sheep	Draft oxen	Cows	Camels	Donkeys
Households with asset (%) in normal year	47%	63%	43%	53%	30%	57%
Average number owned	**8.5**	**70.4**	**2.0**	**2.2**	**1.3**	**2.4**
Households with assets (%) in 2002 (drought year)	53%	50%	20%	27%	23%	70%
Average number owned	**6.4**	**28.0**	**0.4**	**0.4**	**0.5**	**1.7**
Households with assets (%) in 2003	58%	53%	13%	13%	30%	65%
Average number owned	**4.2**	**13.8**	**1.0**	**2.0**	**1.3**	**1.5**

Livestock Disease

According to villagers, the cattle in Gajar Qudok are free of major diseases. In the 4 months before the survey, no cattle were killed or sold. The people of Gajar Qudok own a total of 1,500 sheep and goats and households report that 3% were affected by *enterotoxaemia*, which is a severely debilitating disease. Additionally, 7% of sheep and goats were thought to be infected with anthrax; 3% of sheep and goats were reported to suffer from foot and mouth disease, which is highly contagious. There is a veterinary hospital in Shiberghan and veterinary medicines are available. No animals had been vaccinated during the previous 4 months.

Grazing Land and Access to Water

According to village leaders, access to grazing land in Gajar Qudok had not changed in the past year. They also mentioned that the productivity of the existing grazing lands was the same, and that access to water for the livestock had actually increased in the last year. Access to grazing land in the village is independent of economic status.

Embroidery and Wool Spinning

Wool spinning and embroidery are important sources of household income, especially for the women of Gajar Qudok. This craftwork is done as part of one's own business or as a wage-earning activity for someone else. Craftwork as a self-owned business is a source of income for 70% of households and for 46.7% of the women. In addition, 50% of all households did craftwork for a wage, and 50% of women reported that they received a wage for this work. In Gajar Qudok wool spinning is the most important craftwork: 100% of better-off, 85.7% of medium-income, and 68.4% of poor households involved in it. Additionally, 25% of better-off, 57% of medium-income, and 37% of poor households embroider.

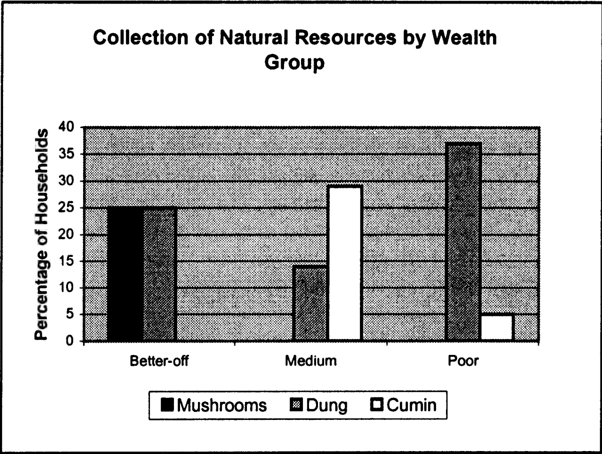
The average income earned from each income source during the previous 4 months is listed in the following table. A breakdown of income by wealth group from each of the above activities reveals that the average income from wool spinning for the better-off households is 425 Afs, with the medium-income category earning 230 Afs and the poor earning 483 Afs. The breakdown for embroidery is 200 Afs, 888 Afs, and 336 Afs, respectively, for the better-off, medium-income, and poor households.

Income Source	Households (n) (%)	Average Income earned in last 4 months
Wool spinning	23 (76.7%)	407 Afs
Handicrafts	12(40%)	508 Afs
Carpets / *gilims*	0	--

There was divided opinion on the sale price of completed handicrafts, with about half the households saying that it rose, 32% saying it dropped, and 18% saying that it stayed the same. The time spent making handicrafts stayed the same for 58%, decreased for 25%, and increased for 17% of households. People's opinion on spun wool was more consistent, with 67% stating that the price of finished goods rose and the opinion being equally divided among those saying it fell or stayed the same. About 60% of the households spent the same amount of time spinning wool with about 25% working less and 16% working more.

Collection and Sale of Natural Resources

During the previous 4 months, 43% of the households were involved in the collection and sale of natural resources. The graph at the left shows involvement in these activities according to wealth group. Mushrooms, dung, and cumin are the resources collected in Gajar Qudok. Mushrooms are collected during the spring, after the rains, and almost all households are involved in this activity. Only a small portion of income from mushroom collection is included in this report because it covers income from late summer and autumn. Dung is collected all year round, but sold mainly in the winter when the price of all fuel is high. Cumin is sold in large quantities in the market in the fall, and is more expensive in the winter. More people than in the past are collecting cumin now that the price is relatively high.



Traders/Business Owners

One household surveyed in Gajar Qudok traded livestock. This household was medium-income, and bought animals in the village at a relatively low price to transport to the market, where they received a higher price. The trader was basically gambling on the future of the market for livestock.

Formal Wage Labor

In Gajar Qudok, 10% of households earned part of their income from salaried work such as government service, health work, education (teaching), or administrative responsibilities, e.g., as an attendant at the local school. Income from these sources tends to remain constant.

Non-agricultural Day Labor

Non-agricultural day labor contributed income to 25% of Gajar Qudok households. This work includes the skilled and unskilled manual labor needed for work in other people's households and for construction on a development project funded by a non-government organization, CESVI.[6]

Loans

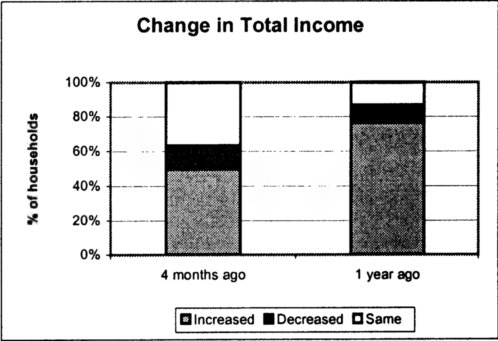
During the previous 4 months, 47% of households reported that they received a significant loan. Households that took loans were from all three wealth groups. Some loans came from village shops where people take food on loan and pay the amount back once they are paid for their work, etc. Only 10% of households mentioned that they had been repaid a loan in the previous 4 months.

Tithes/Gleaning

While better-off households participate in gleaning, they contribute *zaqat* or tithes for the poor. Only the poor receive *zaqat*. According to the data, 17% of households received income from gifts, *zaqat*, and gleaning. Usually women mention more income from gifts, *zaqat*, and gleaning, but in Gajar Qudok only 7% claimed these sources of income.

Capacity to Cope: Coping Strategies

The following graph shows that 13% of households reported their net income had decreased in the previous 4 months and 10% reported that it decreased relative to the previous year. It was not clear why the income from those 10% had decreased, particularly as only 3% claimed their food situation had declined. Additionally, crop production was better in 2003 in this location and included poppies for many households. Those who were dependent on agricultural labor also experienced record high wage rates. Still, some households had their wheat and barley crop destroyed by smut, and could have experienced lower income than in previous years as a result. However, nearly 80% noted their income had increased relative to the previous year, signaling a definite improvement in overall economic conditions for Gajar Qudok.



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[6] During the time of the survey, people had received construction material from the CESVI, which was encouraging people to build domed houses and teaching them how to do so.

Information collected on coping behaviors that can signal declining livelihood and food security corroborates these findings. The coping strategies listed in this section do not include all the options that households may choose to survive difficulties. Instead, they include only those strategies that are easily measured. The list has been divided into erosive and non-erosive coping strategies to better understand the long-term effects of different choices on a household's future livelihood security. The division is not mutually exclusive. The order in the list does not reflect a continuum of increasing desperation. The non-erosive strategy list does attempt to capture some adaptive strategies such as livelihood adjustments, income diversification, or consumption rationing. Finally, the coping strategies in the lists are to be considered options that, when chosen, signal a worsening situation. However, the listed strategies may also capture the behavior of vulnerable and chronically poor households that have no options and engage in these activities because they have to on a normal basis.

Non-Erosive Coping Strategies (last 4 months) (n=40)	Percent
Migrated for labor	7
Begging	3
Worked more hours to pay daily expenses	60
Borrowed food from relatives to make a meal	93
Sold carpet / *gilim* from the house to buy food	3
Sold house furniture to pay for food	0
Sold house part (windows, doors, roof beams) to buy food	0
Sold bicycle to buy food	7
Sold jewelry to buy food	0
Sold motorcycle / car to buy food	0
Ate dried bread	3

Non-erosive coping strategies
The results from monitoring coping behaviors did not signal declining livelihood security in this area, however there were signs that some households relied on adaptive strategies. During the previous 4 months, 1 household ate dried bread, an inferior food only consumed if one cannot afford other food. Additionally, 3 households had to sell bicycles to buy food and 1 household begged.

Having 60% of households work longer hours to meet daily expenses during this period was consistent with findings from other areas and seemed natural as the survey reference period corresponded with the harvest period. Also, 7% of households with a member migrating for labor may be considered normal for a recently settled population. Finally, the figure of 93% of households borrowing food from relatives to make a meal, while a bit high, is similar to findings from other sites and is interpreted as evidence of strong social networks in the community.

Erosive and Distress Coping Strategies
In addition to the usual coping mechanisms used to meet daily expenses, a small proportion of households chose options that are potentially erosive to future livelihood. During this period, a relatively high proportion (47%) of households took a loan. These loans were generally used to cover large expenses such as weddings and funerals. In the previous 4 months, 7% of households sent sons to work as indentured labor. The nature of the labor arrangements was not clear. The fact that 3% of households sold their productive assets, like sewing machines, shows that a small number of households were jeopardizing future production capacity to cover immediate needs.

Erosive Coping Strategies (n=40)	
Took a loan	47
Sold or mortgaged land, house or shop	0
Took food on credit from local shop for a meal	0
Sold sewing machine to buy food	3
Sold loom to buy food	0
Sold handcart to buy food	0
Sold grinder to buy food	0
Sold tractors/combine/agricultural machinery to buy food	0
Married daughter early	0
Sent son(s) to work as indentured labor	7
Sent son(s) to military	0

Income Diversity and Capacity to Cope: Risk to Livelihoods
The diversity of income sources can be scored using a similar method as used in assessing dietary diversity. Households in the Gajar Qudok have an average income score of 4.7, with the income scores correlating with socioeconomic status. Women were also involved in income generation in many households, diversifying risk against idiosyncratic shocks.

Average income diversity score	
Better-off	5.8
Medium-income	5.0
Poor	4.4
All households	4.7

CONCLUSION: LIVELIHOOD SECURITY SUPPORT

Compared to the two other Sayyed Abad sentinel sites, Gajar Qudok is doing better than Namanzai but not as well as Qush Tepa in establishing livelihood security. Households are developing effective behaviors to buffer themselves against poor harvest years without too much loss to livelihood assets. Evidence exists, however, of households that may not be sharing in the opportunities available from high wages and alternative crop production, and that feel their incomes are decreasing. The 10% of households that were not landowners were at some risk of income shortfalls. Also, the 47% of households taking loans during harvest season may signal willingness to risk investment in the future or failed coping strategies in 2003.

Options for supporting socially-acceptable livelihood outcomes are presented in the following table. These options are conceptually arranged so they illustrate how they would support five categories of livelihood assets.[1] Before initiating any of these projects the broader political and social context in which these communities work needs to be further explored to understand if the projects are truly possible. Potential spill-over effects, including the constraints imposed by the seasonality of agricultural labor demands, deserve serious consideration.



[1] The five categories are taken from the DFID Livelihoods Framework model and the format of the table is based on work done by Adam Pain in "Livelihoods Under Stress in Faryab Province" paper (2001).

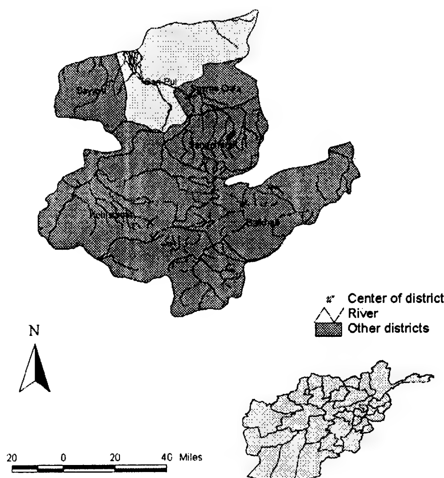
OPPORTUNITIES FOR SUPPORTING SOCIALLY ACCEPTABLE LIVELIHOODS				
Capital base	**Asset**	**Means**	**Group**	**Livelihood outcome***
Natural				
Physical	Wool spinning	Introduce and support more efficient ways of wool spinning such as spinning machines	women	Increased income for women and households
	Improved seed	Introduce improved seed for rainfed wheat; develop a seed base for the commercial production of cumin	crop producers	Increasing crop production
	Closed wells	Dig deep wells that are closed and have hand pumps	all groups	Improved access to clean water
	Livestock vaccines	Establish a veterinary service in Sayyed Abad center	livestock owners	Increased livestock numbers
	Drinking water for livestock	Build *dands* in the hills for rainwater catchment during the winter and spring	all groups	Improved access to water for livestock and other uses
	Latrines	Promote latrine construction and use	all groups	Improved hygiene, less disease
	Grain storage facilities	Build better grain storage facilities to protect grain stocks	crop producers	Less damage to grain stocks
	School building	Build primary school(s)	children of primary school age	Improved level of education, better health and quality of life
Financial	Credit	Provide individual and group micro credit to allow for local investment	all groups	Improved production of small scale/cottage industry; improved income from community assets
Human	Human health	Promote regular attendance for preventive health care at the clinic in Sayyed Abad enter	all groups	Vaccinations; treatment of people and decrease of mortality and morbidity
		Train local women in safe birth practices	women	Prevent maternal mortality
		Repeat measles campaign	young children	Prevent Measles out break
		Implement a health education program	all groups	Improved health and hygiene practices
	Education	Support teachers to improve the quality of their teaching to improve children's learning	school age children, especially; all groups	Improved teaching/learning
Social	Existing social structures for group projects	Implement development projects through existing social structures	all groups	Strengthened social structures supporting community
	Safety net institutions at district level	Implement food- or cash-for-work projects through district administrative units	men	Strengthened government structures for political and economic development

*This column includes the livelihood outcome or, at least, the initial step to link the activity to increased livelihood outcomes.

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Sar-i Pul Surveillance Unit	**National Surveillance System (NSS)** **Transitional Islamic State of Afghanistan** **Ministry of Rural Rehabilitation and Development, Ministry of Agriculture and Animal Husbandry and Ministry of Health**	**Sayyed Abad District** Namanzai Sentinel Site **Fall 2003**

Saripul Province



SUMMARY FINDINGS: NAMANZAI

Food Security
- In 2003, the cereal harvest was better than in 2002
- 40% of households felt that they did not have enough food during the previous 4 months
- Wheat prices were low, helping those households that purchase wheat

Risk to Lives
- The crude mortality rate and the mortality rate of children <5 are within acceptable levels
- Morbidity patterns for children <5 were high (ARI: 70%, watery diarrhea: 47%)
- 16.7% of children <5 are at risk of malnutrition
- 12.5% of women are at risk of malnutrition
- 90% of households did not have toilet facilities
- The main water source is an hour away by foot

Livelihood Security
- No major shocks have affected the livelihoods of households in the Namanzai area in the last year
- All households report that their total income is the same or improved relative to the previous year
- Replenishment of livestock numbers after the drought is progressing more slowing than hoped
- Seasonal migrations of many households inhibit the delivery of services and limit the effectiveness of infrastructural programs

Contents **Page**

What is the NSS?
The National Surveillance System monitors trends in key indicators to predict early signs of change and deterioration in food security, nutrition, and livelihoods. In conjunction with complementary data collection systems, the NSS provides relevant data for prioritizing limited resources and designing programs.

Methodology
The NSS is based on a sentinel site system, in which provincial level ministries follow a rotating cohort of households over time. Sites are selected so that they mirror the majority of the communities with respect to agro-ecological features, economic activities, available services, and people in a given area known as a livelihood or agro-ecological zone. Information from the sentinel may not be representative of every village in the zone because of the diversity of livelihoods in Afghanistan. However, it is likely that the data from one sentinel site can signal concern for other villages in the same zone (See Annex I for detailed information on methodology).


Save the Children.
The Sar-i Pul Provincial Surveillance Unit is supported by Save the Children USA and funded by DfID

REPORT OBJECTIVES

This document has several objectives. First, it intends to report information coming out of the National Surveillance System standardized methodology. Therefore, this report provides:

- current information on household food security status in Sayyed Abad District,
- information on risk to lives and nutritional risk to individuals in Sayyed Abad District,
- information on the current household livelihood security situation in Sayyed Abad District, specifically looking at current shocks to livelihoods and the ability of households to adapt to these shocks, and
- better understanding of the vulnerability and risk of communities and households in Sayyed Abad in relation to issues of food security, mortality, health, and nutrition.

Secondly, this report provides baseline information on indicators that are unique to a local area but had never before been explored in the depth needed for use in guiding programs and policies. These indicators reveal:

- characteristics of household wealth in Sayyed Abad District;
- the presence of malnutrition, morbidity, and mortality in rural communities in Sayyed Abad District; and
- types of livelihood strategies employed in Sayyed Abad District.

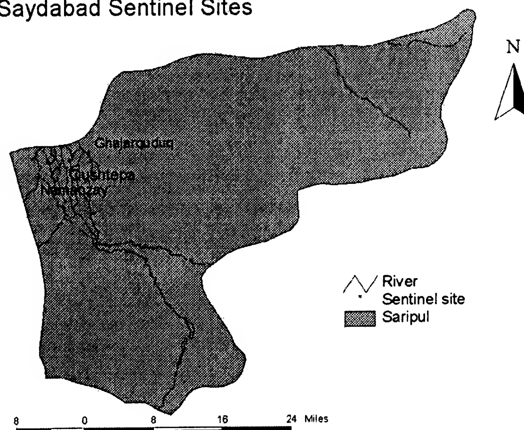
Finally, the report aims to suggest how government and other agencies can use this new understanding about livelihoods, vulnerability, and risk for designing and prioritizing program interventions and effective policies.

SAYYED ABAD DISTRICT LIVELIHOOD ZONES

Sayyed Abad District is located in the northern part of Sar-i Pul Province. It was formed in 1989 from sections of Sayyad and Sar-i Pul districts in Sar-i Pul Province and from Shiberghan district in Jawzjan province. The provincial government recognizes Sayyed Abad as an independent district, but the central government does not. As a result, Sayyed Abad does not appear as a separate district on maps. Sayyed Abad means 'built by Sayyed'.[1] Sayyed Abad town is the official district center housing the governor, the police unit, and the district administrator who collects taxes. The district of Sayyed Abad has continuously been under the Jumbesh political party, although other districts in Sar-i Pul Province are not.

Sayyed Abad has rolling valleys and plains. The district lies at the end of two major snow-fed rivers coming from Kohistanat and Sangcharak districts that provide water for extensive irrigated agriculture in the valleys. The rain fed agricultural land is found on the hilly areas and on some parts of the valleys. The hilly areas sit at an altitude of between 400 to 600 meters.

Zone 1: Intensive Irrigated Land (30 villages): Qush Tepa
Livelihood Zone 1 is central to the district and envelops the river valleys and the lower slopes of the valleys where irrigation channels run. The great amounts of available water allow a variety of crops. The people are from many ethnic groups: Pashto, Hazara, Turkmen, Uzbek, and Tajik. A large number of people left during the years of conflict, but many returned during the last year. Most communities have schools, although fewer have school buildings. There is good access to the main road between Shiberghan and Sar-i Pul town.



Zone 2: Livestock and Rainfed Agriculture (15 villages): Gajar Qudok Livelihood Zone 2 contains villages found on the upper slopes of the hills. Most households rely on rainfed agriculture and livestock as their primary sources of income. Mostly Arabs, they occupy small isolated communities made up of many new returnees. Some communities have newly established schools in tents and they obtain their water from wells.

[1] Sayyed is a family lineage that was related to the Prophet Mohammad.

Zone 3: Grazing Land and Rainfed Agriculture (nomadic populations) (5 villages): Namanzai
Livelihood Zone 3 is located in the western section of Sayyed Abad District where the land starts turning into desert. The primary livelihood of these people is livestock, but some of the households also engage in agricultural production. They are either nomadic or semi-nomadic populations of Pashto living in isolated communities. They leave their communities in the spring for the adjacent grazing lands of the Dashti Layli (desert) and return in autumn. They have limited access to education and they obtain water from the river.

NAMANZAI GENERAL INFORMATION

Background Geography

Namanzai is inhabited by Kuchi people who speak the Pashto language. The people of Namanzai live in the village through the winter and in the summer take their livestock to communal grazing lands in the Dashti Layli a few hours away, where they pitch their tents and live with their animals. The villagers have been settled for about 10 years and now engage in a small amount of crop production.

At the time of the survey, there were 92 households in the village, including 2 that had recently returned. The average household size in the village is 6.8 people, which is a bit higher than the Afghan average of 6.1. A breakdown of average household size is shown in the graph on the right. As in many other Afghan communities, wealthy households support larger numbers. Better-off men in the village have more than one wife at a time and so produce children from both wives. Also, sons of better-off families tend to stay in the household after marriage.

Average household size	
Better-off	**9.0**
Medium-income	**5.8**
Poor	**6.7**
All Households	**6.8**

The village selects the village leader, called the *kariador*. All village level decisions are made by the *kariador* in consultation with the *shura* of village elders. The village has administrative links to the district center of Sayyed Abad through the *kariador* and any dispute that cannot be settled in the village goes to the district governor. Informal taxes are paid proportional to the size of the flocks and on the little crops that they harvest. There are no schools in the area, so no children go to school.

The community divided households into three different wealth groups, or socioeconomic categories. The table below describes some features characterizing each wealth group and the percent of households falling in each category. These socioeconomic groups will be used throughout the report to clarify how food security, risk to lives, and livelihood security may be different for households of different socioeconomic status.

Assets and Activities	Wealth Group		
	Better Off (10%)	Medium (30%)	Poor (60%)
Male Group perception			
Land (Rainfed)	20-30 *jeribs*	no land	no land
Sheep/goats	60-70	30-40	5-10
Camel	3-4	1	0
Donkey	1	1	1
House	has	has	noes not have
Tent (Ghishdi)	1	1	1
labor	people work for him	does his own work	works for others
Glim	has	none	none
Zaqat	give *zaqat*	give *zaqat*	receive *zaqat*
Female Group perception			
Land	20 *jeribs*	none	none
Sheep/goats	100	50	10
Camel	5	2	0
Donkey	2	1	1
Tent (*ghishdi*)	1 tent and a room	1 tent	1 tent
Labor	people work for him	does his own work	work for others
Gilim	has	has	hone
Zaqat	give *zaqat*	give *zaqat*	receive *zaqat*
Jewelry	none	none	none

Local Perceptions of Socioeconomic Status / Wealth

Better-off households: 15%

A rich person has about 50 to 80 goats and sheep, 100 jeribs of irrigated land, 1 house, 2 camels, and 2 oxen.
-women-

A rich person has about 100 goats and sheep, 100 jerib of irrigated land, a house, 2 oxen for plowing the land.
-men-

Medium-income households: 30%

An average household has 40-50 goats and sheep, 20 jeribs of irrigated land, 2 oxen, 1 house, 2 donkeys, and they have money to cover expenses for about 1 year. -women-

An average household has 20-30 goats and sheep, 10 jeribs of irrigated land, 1 house, and 2 oxen.
-men-

Poor households: 55%

A poor person has 2 donkeys, some have 1 house, some do not, work as daily laborers...most income from this. Some have food for a year but most do not have this...they take loans from others -women-

A poor person has 5 goats and sheep, all have 1 donkey, some have 1 house, but it is a small house. Work as labor all the year around. -men-

Information for this report was collected in two surveys. The first one was a baseline surveillance data collection in May of 2003 and the second one, a survey using the standardized national food security and nutrition surveillance questionnaires in November of 2003. However, most of the information was collected during the November work via male and female focus group interviews and 20 household interviews. Households interviewed in 2003 were the same 20 households interviewed in early 2003.

NAMANZAI FOOD SECURITY

Certain indicators reveal information about access, availability, and quality components of food security. Monitoring these indicators can track changes in food security at a sentinel site, identify households' current food security status, and provide information on the nature of any food insecurity.

Market Access

Shiberghan is the closest market to Namanzai and other villages in the same zone. Another important market in the area is in Sar-i Pul, but it is smaller and further from Namanzai. Better-off households visit the market once a week while the others go once every two weeks.

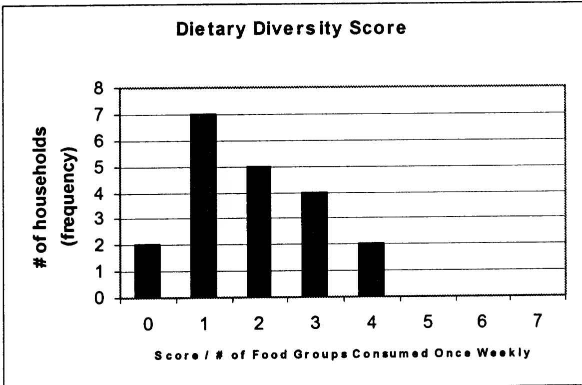
Market location	Time to reach market		Round trip cost	Market accessible in winter and spring?
	Vehicle	Foot		
Shiberghan	2 hours	4 hours	80 Afs	yes

People from this village can travel to Shiberghan either by foot or by vehicle. If they take a public taxi, they must walk for over 1 hour to get to the road. Then it takes 90 Afs in fare and up to 4 hours for the return trip. If they walk to Shiberghan it takes about 4 hours each way.

The men of the household usually go to the bazaar and they take livestock, lambskin, spun wool, and krut to sell. With the money they make from their sales, they buy necessary food and nonfood items like cloth, kerosene, and rice. Transactions in the market place usually take place in cash. Access to the market is possible all year, but the track is bad in the winter which creates problems carrying market goods.

Food Prices

Wheat fluctuated from a high of 50 Afs in January 2003 to a low of 36 Afs during the 2003 year. Households that bought wheat benefited from the low prices. The price of goods purchased from the market increased throughout the year, a trend that concerned many households.



Dietary Diversity and Diet Quality

Dietary diversity is a primary component of food security. Previous studies show that dietary habits in Afghanistan are not very diverse and consequently people are at risk of micronutrient deficiency disorders and related diseases. It is not entirely clear how dietary preferences and available

food types interact to determine household dietary patterns. To better understand the quality of diets in the previous 4 months, surveyors asked about the frequency of eating foods from different food groups.

These results were used to create a dietary diversity score to capture dietary quality and to monitor it over time. The diversity score is calculated by attributing a score of 1.0 to each food group that was eaten at least once weekly. Thus, households with a higher diversity score have a more diverse diet. Repeated surveys throughout the country indicate that most households consume cereals on a daily basis and thus cereals were not included in the diet diversity score. Earlier baseline surveys in the area suggest that most households consumed oil/fat and so this was not included in the score either.

On average, households in Namanzai had a dietary diversity score of 1.85, with the most households scoring 1 or 2. Diversity scores improved according to wealth group, with average scores of 2.17, 1.6, and 1.00 for better-off, medium-income, and poor households, respectively. These results suggest that wealthier households either have the means to buy more expensive foods or have acquired a preference for a more diverse diet.

The following table reflects reported food group consumption frequencies during the previous 4 months, excluding Ramadan and festivals, by wealth group. There is a possibility that the data are flawed. The data show that all households are eating meat, milk, and eggs at least once a month to supplement the protein they are getting from cereals and pulses, though these data do not reveal information on protein sufficiency.

There is no pattern to the consumption of meat. The trend for milk products is also not 'normal'. We find that the intake of milk-products is highest among the poor. This may be because the poor make krut and keep it themselves, but the others make very large quantities of krut and sell it in the market, keeping only small amounts for themselves. Eggs are also a commodity that the poor may be eating more, but all groups are eating it very rarely.

In the last four months, households never ate leafy green vegetables, which were not in season. All households ate potatoes and onions at least 2-3 times a month. Fruits were not eaten as often as the root vegetables, fewer than 2-3 times a month. Watermelon, sweet melon, and cantaloupe were the fruits available in Namanzai during the period of the survey. Other fruits were available in the market but they were very expensive.

As data were not collected on quantities consumed, it is not possible to make statements regarding sufficiency of vitamin and mineral intake. Areas of potential concern would be: 1) vitamin A from animal sources, 2) beta-carotene from plant sources, 3) calcium from milk products and water, 4) iodine from salt, and 5) vitamin C from fresh plant sources.

Average Frequency of Food Group Consumption by Wealth Group

Wealth group	Meat	Milk, yogurt, *krut*, etc.	Eggs	Pulses	Leafy green vegetables	Other vegetables	Fruits
Better-off	2.3	3.3	1.7	2.3	1.0	3.3	2.0
Medium-income	3.2	3.2	1.8	1.6	1.0	3.0	3.0
Poor	2.8	4.5	1.9	3.8	1.0	3.3	2.2
All households	2.9	4.1	1.9	3.1	1.0	3.2	2.4

1 = Never eat
2 ≤ Once a month
3 = 2 to 3 times a month
4 = Once weekly
5 = Twice weekly
6 = 3 to 5 times weekly
7 = Always eat

Crop Production

Rural and semi-rural areas in Afghanistan are highly dependent on subsistence agriculture for their own food needs, so monitoring annual crop yields and amounts planted can help predict the food security situation of households. Agricultural production is fairly important to the people of Namanzai, with 75% of the households deriving an income from their own production and 10% claiming it as their primary income source. As well, 55% of the households also derive an income from agricultural daily wage labor and 5% claim it to be the most important source.

2003 Harvest

The average amount of wheat harvested by the 14 households planting was 106 *seers*. The average amount of barley harvest by the 5 households planting in 2003 was 39 *seers*. The people felt that the harvest in 2003 was much better than that of 2002, and data confirm this fact. The improved yield can be attributed to the abundant rainfall and the better seeds that had been bought for winter planting with cash from livestock sales. Also, villagers took the risk of planting larger areas and more people were available in 2003 to help with harvest because a number of families returned. This is consistent with the trend over the last 10 years that has seen this particular group of Kuchi people increasingly settle and become dependent on agriculture.

Average Yield:	**Rainfed Wheat** *(seers)*		**Barley** *(seers)*	
Seers (1 seer=7kg)	**2002**	**2003**	**2002**	**2003**
Better-off	66	180	26	40
Medium-income	15	84	15	38
Poor	0	102	0	40
All households	5	106	3	39
# households growing crops		14		5

Food Security Perception

Household perception of food security is an important indicator of current food security status. None of the households felt that the present situation was worse that either 4 months ago or 1 year ago. However, 40% of the households felt that they did not have enough food during the previous 4 months. Additionally, 5% of households were worried about where their food was coming from. These households could be characterized as owning no land and having a small household size. Only 1 household felt that the food situation would be worse in the next 4 months. This household mentioned that they were poor, it was small family with few income earners, and the main breadwinner in the family was sick.

Perception of Food Security Indicators	**% of 20 households**
Consider food situation to be worse than 4 months ago	0
Consider food situation to be worse than 1 year ago	0
Consider food situation not to be enough in the last 4 months	40%
Worried where their food was coming from at the time of the survey	5%
Think the food situation will be worse in the next 4 months	5%

A clear pattern does not emerge from examining the food security perceptions in Namanzai. What is obvious is that small families are more vulnerable to a sudden drop in status if the main breadwinner is injured or falls ill. The number of income earners in a household may be a criterion for identifying those at risk of a loss in food security status after a shock.

NAMANZAI RISK TO LIVES

Indicators monitoring the risk to lives at sentinel sites can signal regions where individuals are more vulnerable and reveal underlying causes of increased risk. These indicators help gain better understanding of relationships involving nutrition, sanitation, morbidity, and mortality.

Mortality Indicators

The crude mortality rate (CMR) in Namanzai of 0.0 means that there had been no deaths in the village during the previous 4 months. This is far from the threshold rate of 1.0 deaths/10,000/day, and low in comparison to the normal developing country rate of 0.5 deaths/10,000/day. The 0.00 mortality rate for children <5 compares very favorably with rates found in stable developing countries <1.0 death/10,000/deaths per day).

Of all the deaths among women of childbearing age in Afghanistan, 48% were due to complications during pregnancy or childbirth. Additionally, if the mother dies in childbirth, newborns have a 25% chance of survival; most die within the first month of malnutrition.[4] Due to the high rate of maternal and child mortality in Afghanistan, this study also looked at the number of children who had a skilled birth attendant present at delivery as a proxy for risk to lives of mothers giving birth and newborns. Only 1 child was born during the previous 4 months and this child did not have a skilled birth attendant present at birth. [5]

Risk to Lives Indicators	%
Mortality indicators[2]	
Crude mortality in last 4 months (deaths/10,000/day)	0.00
<5 mortality in last 4 months (deaths/10,000/day)	0.00
Births in last 4 months attended by a skilled birth attendant (n=1)	0.0
Morbidity indicators	
Children <5 years with watery diarrhea (n=27)	44.0
Children <5 years with bloody diarrhea (n=27)	4.0
Children <5 with ARI (n=27)	56.0
Children between 6 and 59 months with measles vaccination (n=26)	60.0
Child anthropometric status (WFH % of median)	
Children with severe and moderate acute malnutrition and edema (n=26)	8.3[3]
Children >6 months and <59 months with edema (n=26)	0.0
Children >6 and <59 months with severe acute malnutrition (n=26)	0.0
Children >6 and <59 months with moderate acute malnutrition (n=26)	8.3
Children >1 year and <59 months with a MUAC under 13.5 cm (n=24)	16.7
Children >1 year and <59 months with a MUAC under 12 cm (n=24)	4.2
Adult women anthropometric status	
Reproductive age women (15-49 years) with a MUAC <23.0 cm (n=24)	12.5
Reproductive age women (15-49 years) with a MUAC <21.0 cm (n=24)	0.0
Micronutrient deficiencies	
Households with iodized salt (only includes households with salt) (n=20)	0.0

Morbidity Indicators

The morbidity indicators included in the surveillance system are associated with a risk of mortality and are the primary causes of death for children <5 in Afghanistan. Among children <5 the 44% incidence of watery diarrhea and 4% incidence of bloody diarrhea was sufficiently high to cause concern. Sanitation is poor in the village, so many of the cases of diarrhea could be attributed to lack of toilet facilities, poor hygiene practices, and a shortage of water.

Acute respiratory infections (ARI) were also high at 56% in children<5. Since this survey took place at the beginning of winter, the cooling weather could have been partially responsible for this very high figure. Additionally, children are continually susceptible to ARI infections because of overcrowding and poor ventilation during the winter months. The lack of adequate health and sanitation facilities contributes to children's vulnerability to all diseases.

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[2] The mortality rate was calculated by collecting information on village deaths from the community *mullah*. This method of calculation is being piloted for the Afghanistan context and may be misleading when comparing the figures to standardized WHO mortality rate cut-offs. Thus, the mortality rate should be interpreted with caution until the pilot finding results are finalized.

[3] Malnutrition level assessments are reported based on a small cohort sample and should only be interpreted over time in order to understand shifts in nutritional status. Because the sample was randomly selected, these shifts are meant to reflect shifts in both the larger sentinel site population as well as the livelihood zone population.

[4] Ministry of Health Afghanistan/UNICEF/CDC, 2002.

[5] Because this question was only asked to female caregivers who had borne a child in the last 4 months, it did not include stillbirths or children who had died during the previous 4 months, so there actually may have been more births in the site in the last 4 months.

According to official statistics, measles vaccination coverage in Afghanistan is 95% and the Ministry of Health (MoH) reports that Sayyed Abad District has a coverage rate of 49%. The measles vaccination coverage of Namanzai was above this figure at 60%.

Children's Nutritional Status

Using weight-for-height (WFH) percentage of the median, the survey found a global acute malnutrition (GAM) prevalence of 8.3% for children between 6 and 59 months, which is an acceptable rate for developing countries. None of the children were found to be severely malnourished (<70% WFH) or suffering from edema. Thus, the 8.3% of malnourished children all fell into the moderately malnourished category.

Children classified as moderately malnourished by a middle upper arm circumference (MUAC) of <12.0 cm are potentially at risk of death. The presence of 16.7% of children with a MUAC <13.5 cm and of 4.2% of children with MUAC measurement <12.0 cm indicates that children in Namanzai were at risk of malnutrition.

Adult Women's Nutritional Status

Low MUACs in women of childbearing age have been associated with high maternal and infant mortality making it an important indicator for increased risks to adult women. In Namanzai, 12.5% of women have a MUAC <23.0 cm, but none had a MUAC <21.0 cm. Additional information on cut-off standards needs to be collected to better interpret the severity of the percentage of women falling below 23.0 cm for a MUAC. However, it should be noted that these women have low MUACs and are at risk of malnutrition.

Micronutrient Deficiencies: Iodine

Presence of iodized salt in the house is a proxy for use of it and for iodine deficiency. Iodine deficiency is linked to the following disorders:

- In all individuals: goiter and loss of energy
- In pregnant women: miscarriage, stillbirth, and mentally retarded children
- In children: impaired mental and physical development, mental retardation, physical deformities, and cretinism

No households had iodized salt; however, it is now available in the Shiberghan market.

Health Services and Facilities

The table on the following page lists the health services and facilities that were available to the people of Namanzai at the time of the survey. No health facilities were available within the village.

Namanzai villagers go to Shiberghan for healthcare. The average doctor's fee is 50 Afs for a consultation. A round trip taxi fare for a patient and companion is about 180 Afs, after a 1 hour trek to the road. The car trip from the main road to Shiberghan takes up to 2 hours. The people from Namanzai only travel to Shiberghan for health care in the case of an emergency. Recently, a comprehensive health center (CHC) has been established in Sayyed Abad center. This CHC is supported by a NGO. At the time of writing, the CHC had not yet opened.

Health Services and Facilities	Facility / service provider location	Time to reach facility / service provider	Round trip cost	Facility access	Facility access in winter and spring?
Health Posts	none	--	--	--	--
Basic Health Center	none	--	--	--	--
Comprehensive Health Center	Shiberghan	±2 hours		--	--
Hospital	Shiberghan	± 2 hours	180 Afs	everybody	yes
Traditional healers/birth attendants	Namanzai	In village	0	women	yes
Skilled birth attendant	Shiberghan	± 2 hours	180 Afs	everybody	yes
Private doctor	Shiberghan	±2 hours	180 Afs	everybody	yes

Water Sources for Household Use

Drinking Water Sources (in order of use)	Time taken for water collection	Quality Δ since last year	Quantity Δ since last year
River	2 hours	same	increased
Wells	<1 hour	same	increased

In Namanzai, the main source of water for household use is the river, a 1 hour walk from the village. River water supplies 80% to 90% of village needs. The other source are wells located <1 hour walking distance from the village but they have salty water. People prefer to use the river water for drinking and cooking. In the rainy season, households collect water in plastic-lined dands. Water availability is a major issue for the people of Namanzai.

Sanitation Facilities

Toilet facilities are rare in Namanzai, which is not surprising because they only recently began to settle down in one place. As nomads they were not confronted with the link between poor sanitation and disease that becomes more obvious when households settle. Only 1 household has an open toilet. Improving sanitation and related hygiene practices are challenges confounded by the lack of water in the village. Furthermore, some of the households live in the homes of the previous occupants of the village or in tents, so constructing toilets is not an obvious priority for them.

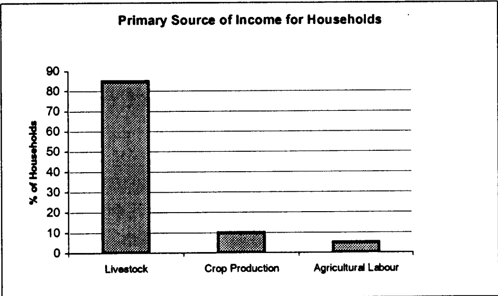
CONCLUSIONS: RISKS TO LIVES

Mortality rates for people in Namanzai were within acceptable levels for Afghanistan and compared well with rates from other developing countries. The nutritional status for children <5 deserves some concern as 16.7% are at risk of acute malnutrition. Additionally, the maternal nutritional levels suggest that 12.5% of the women were at risk of malnutrition. Morbidity rates, especially for ARI, were very high and need attention. Households in Namanzai need to be more aware of the danger signs of ARI to promote early treatment. A public education program should be established emphasizing preventive measures, danger signs, seeking treatment, and home care.

Measles vaccination is better in this area than reported coverage for Sayyed Abad District, but around 30% of children have still not been vaccinated. Now that iodized salt is available in the Shiberghan market, households should be taught about the benefit of using iodized salt.

NAMANZAI LIVELIHOOD SECURITY

Livelihood security indicators focus on the livelihood strategies of households within a community. They reveal livelihood assets related to particular income sources and expose current shocks to livelihood sources as well as households' abilities to cope with these shocks. Analysis of these indicators could provide agencies with sufficient information to decide whether there is a need to respond to a current shock. Finally, examination of coping strategies can identify characteristics of particularly vulnerable households.



Livelihood Strategies

The primary source of income for most households in Namanzai during the previous 4 months was livestock, followed by crop production and agricultural labor. All the better-off households and medium-income households depended upon livestock as the primary income earner. Among the poor households, 73% depend on livestock, 18% on agricultural production, and 9% on agricultural daily wage labor.

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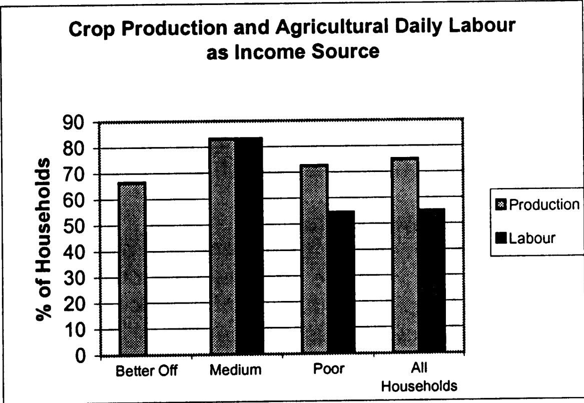
The following table shows the proportions of households engaged in each of the different income activities. It is intended to illustrate the relative importance of different livelihood strategies to the community. The table also lists percentages of women participating in income generating activities. Data on women's income activities uncover the role of women in current livelihood strategies and provide information that men may have left out or not have been aware of when commenting on household income. Craftwork is important to the people of Namanzai. A full 65% of households gained income through women making beadwork jewelry or spinning wool as their own business. Working on handicrafts for a wage employed women in 50% of the households. Another 50% of the households had women that reported taking a loan as a livelihood source. Additionally, around 40% noted that the collection of natural resources was also a source of income. Tithes or zaqat helped 25%. Only 5% noted receiving income from shops or trade.

Household Income Activities (as reported by men and women)	**% of households with income earned by men and women from activity cited at left** (per men)	**% of households with income earned by women from cited activity** (per women)
Livestock	100.0	--
Wool/handicraft business	80.0	65.0
Agricultural crop production	75.0	--
Natural resource collection	60.0	40.0
Agricultural day labor	55.0	--
Wool/handicraft labor	45.0	50.0
Taking a loan	45.0	50.0
Tithes	25.0	25.0
Repayment of a loan	10.0	--
Informal wage labor	10.0	--
Shops/trade	5.0	5.0

Crop Production and Agricultural Day Labor

Crop production is increasingly becoming an important income source for the people of Namanzai, with 75% of all households deriving some income from it and 10% citing it as their primary income source. In addition, 55% of households derive an income from agricultural day labor, with 5% citing it as their primary income source. Agricultural labor contributed to the incomes of the middle-income and poor groups, but not at all to the better-off households.

The only crop grown by this community on a large scale is wheat. There is comparatively little privately owned land in this area and only 25% of the population, or 5 households interviewed, own any land. A number of people grow crops on common government area or common grazing lands. Crops are planted in the western and eastern parts of the district, not close to the village that is their home.



The community is just beginning to plow the common grazing lands so the sod still needs to be broken up every year. Winter wheat is planted from September through December and takes the largest proportion of seed. Spring planting is undertaken in January and February.

Crop Calendar	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfed wheat												
Barley												
			Spring Planting				Harvest			Winter Planting		

In 2003 some Namanzai households risked planting poppies, even though the district and provincial governments had threatened early in the season to eradicate the crops throughout the region. The government did destroy the crops in a few locations and one of them was Namanzai. Apparently Namanzai was targeted because the people did not have guns to resist and because the people were Kuchi, a minority ethnic group in the area without connections to the government.

Crop Production Assets: Land Ownership and Draft Oxen
Land ownership is the key livelihood asset for agricultural production. Land ownership patterns are listed in the table below. As this community sees itself as being predominantly pastoralist, they value their animals more. They have started practicing agriculture only relatively recently and do not have ownership documents. Ownership is passed on from father to son. The landholding households of Namanzai do not officially own land in the vicinity of the village, but they hold long term leases arranged to encourage migration during the last century.

Land Ownership	All Households	Better-off	Medium-Income	Poor
Households owning land (%)	25%	33%	50%	9%
Average amount of land owned (*jeribs*)	6.2	12.0	5.2	4.0
Average amount of rainfed land owned (*jeribs*)	6.2	12.0	5.2	4.0
Households owning one or more draft oxen (%)	0	0	0	0

In Namanzai, 25% of the households own land. The average landholding for these households is 6.2 *jeribs*. Only 33% of the better off, 50% of the middle-income and 9% of the poor are landowners.

Shocks to Agricultural Yields
In Namanzai, 60% of the households mentioned that they faced crop losses in the last growing season but some may be part of the normal variation in yields. Of those growing wheat, 15% lost more than 50% and another 15% lost 20% to 50% of their crop to a parasitic plant or weed, called jawdar or arzi. One household planted flax and lost more than 50% of their crop. As livestock ownership is the main livelihood source for most of these households and only 10% of households list crop production as the main contributor to their income this shock may not have huge detrimental effects on any household.

Livestock
Livestock ownership is the most important livelihood source to the people of Namanzai. All households report income from livestock, while ownership of livestock and livestock produce is the primary income source for 85% of the households in the village. The following table shows the average ownership of livestock animals according to wealth group for the 20 households surveyed. The people of Namanzai own donkeys, camels, sheep, and goats.

The 2002 study reported that livestock numbers declined drastically during the drought. The number of animals is increasing, but is still not close to the pre-drought figures. People claimed the net loss exceeded the net gain during the previous 4 months. In total, 10 young breeding female sheep were bought, 84 sheep were sold or killed including 36 breeders, and 42 died or were lost. During the same 4 month period, 5 breeding goats were bought, 24 were sold or killed including 14 breeders, and 19 died or were lost.

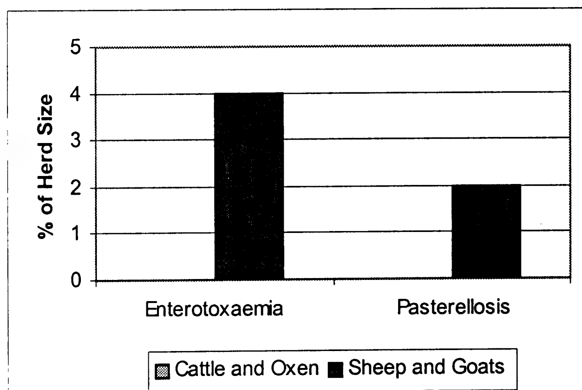
Livestock Ownership	Goats	Sheep	Draft Oxen	Bulls	Cows	Donkeys	Horses	Camels
# of better-off households owning animals	3	3	0	0	0	3	0	3
Average # of livestock owned (better-off)	8.3	51.3	--	--	--	1.3	--	3.7
# of medium-income households owning livestock	4	6	0	0	0	5	0	5
Average # of livestock owned by medium-income households	6.0	32.0	--	--	--	1.2	--	1.6
# of poor households owning animals	10	10	0	0	0	11	0	8
Average # of livestock owned by poor households	6.3	16.2	--	--	--	1.4	--	1.9
Overall # of households owning animals	17	19	0	0	0	19	0	16
Overall average # of livestock owned	6.6	26.7	--	--	--	1.3	--	2.1

Data suggests that households are struggling to recover from the drought as indicated in the table below which shows households and their livestock in a normal year, in the drought year of 2002, and in 2003. Sheep and camel numbers have decreased, goat numbers have increased, and fewer donkeys were owned by more households in 2003.

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Livestock Ownership Comparisons	Goats	Sheep	Draft Oxen	Cows	Camels	Donkeys
Households with assets in a normal year (%)	65%	95%	5%	5%	90%	90%
Average number owned	10	226	0.4	0.1	6.0	2.4
Households with assets in 2002 (drought year) (%)	65%	100%	0%	0%	85%	95%
Average number owned	3.4	48	0.0	0.0	2.4	3.6
Households with assets in 2003 (%)	85%	95%	0%	0%	80%	100%
Average number owned	6.6	26.7	--	--	2.1	1.3

Many of the animals in the village were sold or killed so that they could afford to buy seeds for the winter planting and livestock may be replenished after the harvest.



Livestock Disease

The people of Namanzai owned a total of about 2500 sheep and goats. The owners report that 4% were affected by enterotoxaemia, which is a severely debilitating disease and that pasterellosis infected 2%. There is a veterinary hospital in Shiberghan and veterinary medicines are available. No animals had been vaccinated during the previous 4 months.

Grazing Land and Access to Water

According to village leaders, access to grazing land in Namanzai has not changed in the past year. However, they do state the lack of rain affected livestock's access to water. Access to grazing land in the village is independent of economic status.

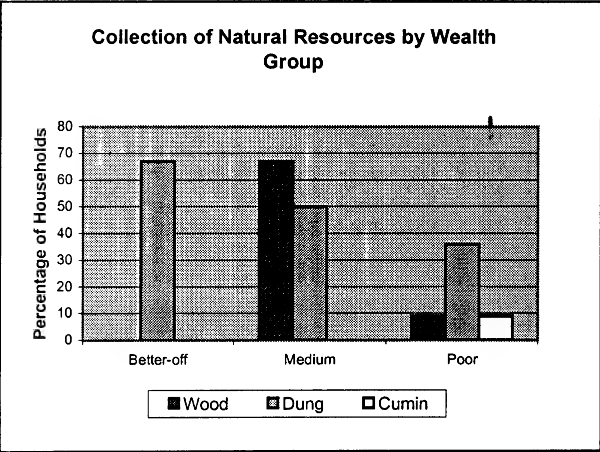
Beadwork, Carpets, *Gilims*, and Wool Spinning

Spinning wool, making beadwork jewelry, and weaving woolen mats were important sources of income for the households and especially the women of Namanzai. This craftwork can be a business or a wage-earning activity. Self-owned craftwork businesses earned income for 80% of households and 65% of the women. In addition, 45% of all households did craftwork for a wage and women reported that 50% of them received a wage for this work. In Namanzai, wool spinning is the most important of these activities.

The average income earned from each craftwork income source is listed in the following table. In the previous 4 months, the average income from wool spinning was 1,000 Afs for the better-off households, with the medium-income households earning 667 Afs, and the poor earning 608 Afs. The breakdown for jewelry making is 750, 425, and 500 Afs for the better-off, medium-income, and poor households, respectively. Weaving *gilims* brings in a lot more money. The average incomes for the better-off and the poor households that do this are 12,000 and 5,333 Afs.

Household income sources	Income Source (n)(%)	Average Income earned in last 4 months (Afs)
Wool spinning	18 (90%)	683
Silk spinning	0	--
Handicrafts	5(25%)	570
Gilims	4(20%)	7,000

Households reported that market price of jewelry rose during the previous 4 months and the price increase was large enough that households producing jewelry were able to decrease the time spent in making them. There is a divided opinion on the sale prices of completed *gilims*, with half the households saying that they rose and half saying that prices fell. The time spent weaving *gilims* has either stayed the same or decreased. The opinion of people on spun wool was far less consistent. About half the households were spending less time spinning wool and about a quarter each spent more time or the same amount of time.



Collection and Sale of Natural Resources

Collection and sale of natural resources contributed income to 60% of the households. Wood and dung were collected in Namanzai. The price of wood and dung is high in the winter when there is greater demand for fuel. Most households collect this material when they are relatively free of agricultural work or when the rate for agricultural labor is low.

Shop Keeping

One surveyed household in Namanzai sells medicines out of the house. This household is better-off and can finance the required stocks, negotiate the best prices, and keep simple accounts and inventory. During the previous 4 months, the income from this source has increased. As this is possibly the only shop selling medication within the village of Namanzai, it is probably able to make a decent profit on the goods it sells.

Informal Wage Labor

In Namanzai, 10% of households earn part of their income from informal daily labor. These households either do any work that can be found or they are shepherds for others' herds.

Loans

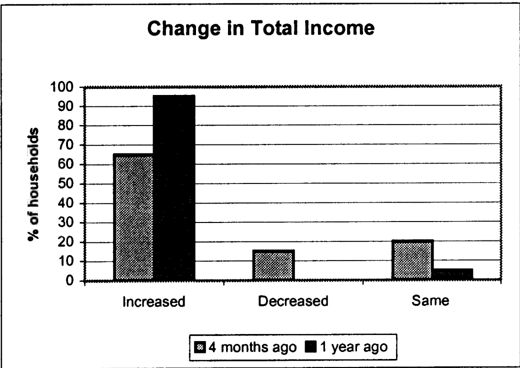
During the previous 4 months, 45% of the households took a loan. In fact, this was counted as one of the top three income sources. All the households who took loans were medium-income and poor households. Some of these loans were taken from the shops in the village. People take food on loan and pay this amount back as soon as they get paid. Additionally, some households mentioned that they had been repaid a loan in the last 4 months before the survey.

Gifts and Tithes

During the previous 4 months, 25% of households received zaqat or tithes. These were either middle-income or poor households receiving required zaqat from the better-off households in the village.

Capacity to Cope: Coping Strategies

The graph on the right shows that 13% of households reported their net income had decreased during the previous 4 months, but no households reported that it decreased since the previous year. The recent decrease could be due to the fact that households focused on winter preparations during this period.



The general increase in income over the previous year may be attributed to better crop production and the record high wage rates for agricultural labor.

Information collected on coping behaviors that can signal declining livelihood and food security corroborates these findings. The coping strategies listed in this section do not include all the options that households may choose to survive difficulties. Instead, they include only those strategies that are easily measured. The list has been divided into erosive and non-erosive coping strategies to better understand the long-term effects of different choices on a household's future livelihood security. The division is not mutually exclusive. The order in the list does not reflect a continuum of increasing desperation. The non-erosive strategy list does attempt to capture some 'adaptive strategies' such as livelihood adjustments, income diversification, or consumption rationing. Finally, the coping strategies in the lists are to be considered options that, when chosen, signal a worsening situation. However, the listed strategies may also capture the behavior of vulnerable and chronically poor households that have no options and engage in these activities because they have to on a normal basis.

Non-erosive Coping Strategies

The results from monitoring coping behaviors did not signal declining livelihood security in this area, however there were signs that some households relied on adaptive strategies during the previous 4 months. Only 1 household migrated for labor, but this was most likely a seasonal trend as household members often migrate during the agricultural production season.

Non-Erosive Coping Strategies (last 4 months) (n=20)	%
Migrated for labor	5
Begging	0
Worked more hours to make daily expenses	70
Borrowed food from relatives to make a meal	90
Sold carpet / *gilim* from the house pay for food	20
Sold house furniture to pay for food	0
Sold house part (windows, doors, roofbeams) to pay for food	0
Sold bicycle in order to pay for food	0
Sold jewellery in order to pay for food	0
Sold motorcycle / car in order to pay for food	0
Ate dried bread	0

The 70% of households working longer hours may represent rather serious winter preparations that these semi-nomadic households must undertake at this time of year. The 90% of households that borrow food from relatives to make a meal is also normal and does not necessarily signal a sign of declining livelihood security. Instead this reflects social support systems within the community.

To cover their food expenses, 20% of the households sold *gilims* from their houses, suggesting that some households follow a variety of different strategies to meet food needs. Normally at the time of the year the survey was taken, households sell assets to cover the cost of winter preparations or some necessary expenditure, such as seeds for winter planting.

Erosive and Distress Coping Strategies

Besides the usual coping mechanisms used to meet daily expenses, a small proportion of households chose options that are potentially erosive to future livelihood.

Erosive Coping Strategies (n=40)	%
Took out loan	45-50
Sold or mortgaged land, house or shop	0
Took food on credit from local shop for a meal	53
Sold sewing machine in order to pay for food	0
Sold loom to pay for food	0
Sold handcart to pay for food	0
Sold grinder in order to pay for food	0
Sold tractors /combine/agricultural machinery to pay for food	0
Married daughter early	0
Sent son(s) to work as indentured labor	10
Sent son(s) to military	0

Men and women reported that between 45% and 50% of households took out loans during the previous 4 months. As mentioned above, these loans were primarily taken by middle-income and poor households as loans for food from the shop in the village and paid back as soon as households got paid.

This information is consistent with the 53% of households responding to having taken food on credit from the local shop in order to make a meal. For many households this behavior is not a problem, if they are able to repay it within a short interval. However, those households that cannot repay will acquire a debt burden that will hamper their future sustainable livelihood options. Also, it should be noted that having over 50% of households taking food on credit suggests a lot of households with short-term cash flow problems.
Finally, 10% of households sent their sons to work as indentured labor. The nature of this labor arrangement was not entirely clear, but it was most likely as an additional income source to the household instead of payment of past debts.

Income Diversity and Capacity to Cope: Risk to Livelihoods

Households in the Namanzai area engage in a variety of livelihood strategies, which allow them to be less vulnerable to any single shock. The diversity of income sources can be scored using a similar method as used in assessing dietary diversity. Namanzai households have an average income score of 5.1,[6] with poor households having the fewest income sources. Women were also involved in income generation in many households, diversifying risk against idiosyncratic shocks. However, it should be noted that a shock to any of their income sources does have an impact on their livelihood security as none of the income sources have the potential to entirely support households. An exception may be livestock, but only for households maintaining large livestock

Average Income Diversity Score	
Better-off	5.0
Medium-income	6.1
Poor	4.6
All households	5.1

[6] An income diversity score is simply a count of the number of income sources for each household.

holdings. Livestock assets and, increasingly, land assets are important for household livelihood security. Human capital is also extremely important, and allows the households to engage in a variety of livelihood strategies at once.

Conclusion: Livelihood Security Support

Namanzai is a community that depends heavily on livestock for their livelihood. Their living conditions are difficult with limited access to services and markets, because many households migrate follow their flocks during the year. As in other areas where livestock is important, livelihood security suffered from the long drought. Replenishing livestock numbers will be very important as will support of the complementary craftwork activities that bring in much needed cash.

Options for supporting socially-acceptable livelihood outcomes are presented in the table below. These options are conceptually arranged so they illustrate how they would support five categories of livelihood assets.[7] Before initiating any of these projects the broader political and social context in which these communities work needs to be further explored to understand if the projects are truly possible. Potential spill-over effects, including the constraints imposed by the seasonality of agricultural labor demands, deserve serious consideration.

[7] The 5 categories are taken from the DfID Livelihoods Framework model and the format of the table is based on work done by Adam Pain,"Livelihoods Under Stress in Faryab Province" (2001) .

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OPPORTUNITIES FOR SOCIALLY ACCEPTABLE LIVELIHOOD OUTCOMES				
Capital base	**Asset**	**Means**	**Group**	**Livelihood outcome***
Natural				
Physical	Wool spinning	Introduce and support more efficient ways of wool spinning: such as wool spinning machines	women	Increased income for women and households
	Improved seed	Introduce improved seed for rainfed wheat. Develop a seed base for the commercial production of cumin	crop producers	Increasing crop production
	Closed wells	Make deep wells that are closed and have a hand pump.	all groups	Improved access to clean water
	Livestock vaccines	Establish a veterinary service in Sayyed Abad Center	livestock owners	Increased livestock numbers
	Drinking water for livestock	Build *dands* in the hills for rainwater catchment during the winter and spring.	all groups	Improved access to water for livestock and other uses
	Drinking water for households	Promote rainwater catchment in compounds	all groups	Improved access to drinking water
	Latrines	Promote the building of latrines in the village	all groups	Improved hygiene, less disease
	Community building	Build community building for activities, including education activities	all groups, especially children	Improved level of education, better health and quality of life
Financial	Credit	Provide microcredit for individuals and groups for local investments	all groups	Improved production of small scale cottage industry, Improved income from community assets
Human	Human Health	Promote regular attendance for preventive health care at the clinic in Sayyed Abad Center	all groups	Vaccinations Treatment of people and decrease of mortality and morbidity
		Train local women in safe birth practices	women	Prevent maternal mortality
		Repeat Measles campaign	children	Prevent Measles out break
		Implement a health education program	all groups	Improved health and hygiene practices
	Education	Implement a non formal education program for children with a focus on life skills	children	Improved learning
Social	Already existing village social structures for group projects	Run projects through existing social structures	all groups	Strengthened Social Structures supporting community in the future
	Safety net institutions at district level	Run food-for-work or cash-for-work projects through district level administration	men	Strengthened government structures supporting political and economic processes

*This column includes the livelihood outcomes or, at least, the initial step that will link the activity to increased/improved livelihood outcomes.

NSS METHODOLOGY OVERVIEW[1]

The National Surveillance System (NSS) is based on a sentinel site system. These sentinel sites are tracked over time to monitor changes in food security, livelihoods, and nutritional status. The sampling methodology is based on a multi-stage sample selection process and incorporates both urban and rural areas in the sample. The table and narrative steps below detail the process used to determine the stratification framework and levels of the sample.

Rural strata	Urban strata	Rural Representation and Method of Division	Urban Representation and Method of Division
Provinces	Provinces	Every province is to be represented in the surveillance system. 33 provinces are divided according to Ministry of Interior definition of provincial boundaries.	
Districts	Urban Areas	Every rural district is to be represented in the surveillance system. Rural districts are divided according to Ministry of Interior definitions, except in the cases where currently recognized local administrative boundaries differ.	Urban areas are defined as having a population over 500,000, >100 shops and permanent food market. These include Kabul, Mazar-i Sharif, Kandahar, Herat, Jalalabad, Kunduz.
Livelihood Zone	Livelihood Groupings	Districts are divided into ago-ecological or livelihood zones.	Urban centers are divided into *nahia*, which is the sub-unit of an urban area used by the Central Statistic Office. *Nahias* in the urban setting are categorized into livelihood groupings.
Sentinel Site – Villages or Mosque Areas	Sentinel Site – Urban Blocks	One settlement or mosque area within a settlement is selected from each livelihood zone as the sentinel site.	A block is selected from each of the livelihood groupings. If the block is not large enough for a sufficient sample, then a neighboring block will also be included in the sample.
Wealth groups	Not applicable	In each sentinel site settlement, a wealth group breakdown is conducted in which all the households will be categorized into three wealth groups; poor, medium, and better off.	Because people do not have detailed information on households in their blocks, it is difficult to implement a wealth group breakdown.
Households	Households	Households are randomly selected proportional to actual representation in the population of households within the three wealth groups. The number of households selected and the selection process is detailed below.	Households are randomly selected from the block.
Individuals	Individuals	Individuals are selected from each household in the survey. Selection of individuals is only necessary for measuring certain indicators (i.e. anthropometric status) and will be based on the case definition of the indicator.	

The steps for defining livelihood zones and household selection for rural application of the NSS sampling methodology are explained below, and these steps can also be applied to the corresponding urban strata discussed in the table above.

Defining Livelihood Zones within a District

The first step completed in defining a livelihood zone was to find information on the following subjects in all settlements in a district, or as many as possible.

Defining Criteria:

- Agro-ecological context (topological/geological/soil description, water, land-cover/land-use)
- Economic resources and activity (sources of income and food, access to markets)
- Services (health, education, water, roads, other services)
- People (ethnicity, number of households in settlement).

Once the information was collected, the district was separated into livelihood zones based on *agro-ecological context* and *economic resources and activity* features. *Services* and *people* features were also considered but were not usually the basis for livelihood zone distinction.[2]

[1] Information on the methodology can be found in the NSS methodology document on http://www.mrrd.gov.af/vau/
[2] In some areas of implementation, the agro-ecological zones used by the 2002 WFP-implemented *Country-wide Food Needs Assessment* were used to define livelihood zones.

Sentinel Site Selection
Since sentinel sites are meant to be representative of their zone, the site, to the extent possible, was selected to mirror the majority of the settlements in the livelihood zone with respect to the defining criteria mentioned above. Inevitably, it is impossible to find homogeneity across all of these indicators, thus *agro-ecological context* and *economic resources and activities* were given a priority. Additional factors that were considered when choosing a sentinel site included:

- Population of sentinel site should be representative of a majority of settlements in the zone
- Distance from roads and markets relative to other villages/towns in zone
- Presence of other related surveys in order to avoid survey fatigue
- Permission by local authorities and community leaders.

Wealth Group Differentiation
As part of focus group discussions, government surveillance unit teams separately asked male and female focus group members to identify how the people in the community define wealth and then define better off, medium and poor households. Once these characteristics were agreed upon, both male and female teams used the list created in the male focus group of all households in the community to place each household into a wealth group category and then asked for the rationale behind the placement. From here male and female lists were checked to find out when the households had been assigned to a different wealth group. If households were different, male and female surveyors together had to decide on a mutually agreeable placement for the households, either by following up with focus group members or by noting that one group had a knowledge gap regarding the household under discussion.

Household Selection

For the purpose of the national surveillance system, a household is defined as a group of individuals sharing income and expenditure and that are living within the same compound. Households were randomly selected proportional to their actual representation in the population within the three wealth groups. The number of households surveyed depended on the size of the sentinel site. If the settlement had over 200 households, a mosque area or a distinct community area was selected as the sentinel site. For nomadic populations of less than 50 households, it was recommended to include all households if possible.

Total households in village	Number of households selected
< 50	All households if possible
50 - 75	20
76- 99	30
100-200	40
> 200	Choose community within village as sentinel site

Selection of Individuals
Selection of individuals within households was only necessary for measuring certain anthropometric status. In this case, all individuals in selected households meeting the case definition criteria for these indicators were included in the survey

Data Collection Instruments and Fieldwork
Data collection for the NSS was originally envisioned to occur three times a year,[3] and the fall round 2003 was the first round using standardized questionnaires. The male and female sentinel site questionnaires included focus group discussions with male and female elders. The male household questionnaire was asked to the male head of household and the female household questionnaire was asked to the female head of household. Many of the questions included in the NSS standardized questionnaires referenced the period four months prior to the survey in order to gain an understanding of issues of seasonality in relation to livelihood strategies, food security and risk to lives. The market survey questionnaire collected data at the provincial capital as well as at the main permanent food market nearest to each sentinel site on a monthly basis.

Government surveillance data collection teams consisted of one NGO supervisor, two staff from MRRD (one male and one female), two staff from MAAH (one male and one female) and two other casual staff. They were all trained on the surveillance system project as well as the implementation of the questionnaires.

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[3] Lessons learned from the fall round suggested that collecting data three times a year was neither financially feasible nor necessary for most locations. The pilot NSS collected only a second round of data in spring 2004

Time was spent working with ministry partners and other stakeholders to define case definitions for items such as morbidity, livestock diseases and livelihood strategy categories. Please see guidance notes for the questionnaires posted on http://www.mrrd.gov.af/vau/. It is worth noting here that livelihood strategies were grouped according to the following categories:

Agricultural crop production	Cultivators who own the land, sharecroppers, or farmers renting land from others for cultivation.
Agricultural day labor – casual labor	Anybody participating in the daily or casual labor related to agriculture. This could include land preparation, sowing, weeding, harvesting and post-harvest processing.
Agricultural livestock	Households generating income (cash or in-kind) from their own livestock
Carpets/handicrafts	Households that weave carpets or make handicrafts and sell or exchange them
Carpets/handicrafts – wage labor	Households that weave carpets or make handicrafts on a wage labor basis.
Shops/trader – own business	Anybody who engages in significant trade, e.g. shop or livestock trader.
Small trade related business - push carts, mobile street vendors etc.	Businesses that are smaller scale than those above, such as push carts, mobile street vendors etc.
Formal wage labor (e.g. government/ health/ education/ administrative)	
Informal wage labor (e.g. shepherd, driver)	Informal wage labor indicates that a more permanent or longer term labor contracts than daily labor.
Non-agriculture day labor (artisan and manual labor)	Non-agricultural daily labor covers a range of activities not related to agriculture, but where people normally work daily or casually.
Rental income (land, house, shops, agriculture equipment, transport vehicles)	People deriving income from the rent of land, houses, shops and equipment such as combine harvesters or tractors.
Remittances	People deriving income from family members remitting money from another country.
Take out loan	Money received on credit or loan.
Repayment of loans	Money received from someone who repaid a loan.
Begging	
Gifts/tithes/gleaning/aid	This category includes gifts received from friends, family and community members. It includes *zaqat*, gleaning rights, and aid.
Mortgaging land, house, shop	
Collection and sale of natural resources	Natural resources can be bushes, trees, mushrooms, wild plants, etc.

Data Entry and Analysis
Data was entered into a decentralized Microsoft Access database and Access reports produced in each provincial surveillance government unit. These Access reports were then used by the provincial surveillance unit to create this report and the corresponding Dari report. The findings were analysed and have been presented in three categories in order to facilitate the use of this information to inform policies and programs: Food Security, Risk to Lives and Livelihood Security.

NOTE: *These reports were compiled and analyzed as part of a multi-faceted, multi-agency pilot project, and all data and analysis should be checked against final compiled results, and additional information found in a separate document to be produced by the NSS government partners:* http://www.mrrd.gov.af/vau . Contact: amanullah.assil@mrrd.org .



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